COMPUTERWORLD

THE VOICE OF IT MANAGEMENT ■ WWW.COMPUTERWORLD.COM

NOVEMBER 14, 2005 ■ VOL. 39 ■ NO. 46 ■ $5/COPY

KNOWLEDGE CENTER: OUTSOURCING

ASPs, Take Two

Application service providers, many of which failed in the dot-com crash, are back for a second act that has them playing new, more complex roles as "managed service providers." But buyers need to tread carefully in this still-immature market.

Stories begin on page 61.

ONLINE: Get some free pointers from lawyers for structuring ASP and MSP deals. **Visit computerworld.com/outsourcing/report**

CA Pushes Integration Strategy for Unicenter

Upgrade widens internal connections, links to rival tools; users look to new capabilities to ease management tasks

BY MATT HAMBLEN

Computer Associates International Inc. will announce a major upgrade of its systems management software at its CA World user conference in Las Vegas today, focusing on increased integration among its Unicenter products and between them and rival tools.

Unicenter already integrates with some management tools from other vendors. But Mark Barrenechea, executive vice president of technology strategy and chief technology architect at CA, said last week that the company will talk about ways to further link Unicenter to products from Microsoft Corp., Hewlett-Packard Co. and IBM's Tivoli unit.

INSIDE

CA's integration effort is more than just marketing talk, says exec Mark Barrenechea. Page 78

"Not only will our [own] products be integrated, but they will also allow for an integration platform into your current environments so you don't have to go through 'rip and replace,' " Barrenechea said.

He confirmed that CA will announce Unicenter Release 11 at the conference, along with new versions of its eTrust security software and BrightStor stor-

CA, page 78

Microsoft Has Big Plans for SQL Server

Vendor tries to shake database's low-end image

BY ERIC LAI
SAN FRANCISCO

SQL Server's roots as a product used by small companies and departments within larger enterprises have left the Microsoft Corp. software with the tag of being the little database that couldn't handle the data center needs of IT managers.

With last week's belated official release of SQL Server 2005, Microsoft is trying to dispel that reputation once and for all. At its launch event here, Microsoft trotted out one

SQL Server, page 16

IT Execs Seek Cohesive Data Storage Policies

Tools, management support are lacking

BY LUCAS MEARIAN
LAS VEGAS

Despite advances in tiered storage technology, many IT managers say they have no idea of the value of their companies' data and can't manage it in any automated way.

ONLINE

For example, Laura Fucci, chief technology officer at the Las Vegas-based MGM Mirage hotel and casino chain, said her department has implemented a tiered storage infrastructure for its 180TB of data. Nevertheless, the company is still trying to better manage its storage, she said.

Fucci was among several speakers at the Storage Decisions 2005 conference who were here last week to talk about information life-cycle management and tiered storage.

"One problem we have at MGM Mirage is we don't have a storage [management] policy. We're going to tackle that next year," Fucci said. She noted that the company must also develop a policy for handling sensitive data, such as credit card numbers. "The lawyers are compiling that information now," Fucci said.

MGM Mirage is in the process of implementing Symantec

Storage, page 78

NEWSPAPER

WebSphere

IBM
YOU VS

CONTENTS

11.14.05

Data Detectives

In the Technology section: IT managers such as Phillip Murray, departmental systems administrator at McCarron International Airport in Las Vegas, are using database monitoring and auditing software to make sure they're aware of any suspicious data transactions. **Page 29**

Beyond the Water Cooler

In the Management section: Attorney and IT Mentor John P. Hutchins takes a closer look at some of the known — and lesser known — legal issues around corporate blogging. **Page 45**

NEWS

4 **The avian flu** threat prompts calls for IT managers to plan for workforce disruptions.

6 **The U.S. Navy** has wasted $1 billion on four failed ERP pilot projects, according to the GAO.

6 **The Pentagon works** with a private-sector consortium to improve its ability to adopt new technologies.

10 **New software from** Business Objects overcomes its predecessor's shortcomings, say users.

12 **A breach-notification bill** that critics say isn't tough enough advances in Congress.

14 **Global Dispatches: Tata** Consultancy Services expands its Latin American operations.

16 **Q&A: Microsoft CEO** Steve Ballmer says the release of SQL Server 2005 should overcome reluctance to use the database to support enterprise-class apps.

18 **Q&A: SAP's CEO** talks about the changing ERP business.

19 **The FAA installs** a system to monitor and analyze security data from multiple devices.

ONLINE

ONLINE DEPARTMENTS

Breaking News
computerworld.com/news

Newsletter Subscriptions
computerworld.com/newsletters

Knowledge Centers
computerworld.com/topics

Online Store
computerworld.com/store

OPINIONS

8 **On the Mark: Mark Hall** reports on a study that found that the direct and indirect expenses for companies that have suffered breaches of customer data can reach well into the millions.

24 **Don Tennant** says the same determination to improve people's lives through better communication has now yielded an unprecedented initiative to study and share information about the human brain.

24 **Michael H. Hugos** likens the workings of IT to the two great musical traditions of his hometown of Chicago.

42 **Curt A. Monash** believes memory-centric data management is coming into its own because it's fast and cheap compared with other technologies.

58 **Bart Perkins** thinks it's time to look beyond the benefits of software standardization to some of the troubling long-term ramifications.

80 **Frankly Speaking: Frank Hayes** sees in Sony's disastrous attempt to clamp down on digital piracy a need for a devil's advocate who can see through those kinds of flawed projects before they become a big problem.

DEPARTMENTS/RESOURCES

At Deadline Briefs	4
News Briefs	8, 12
Letters	25
IT Careers	75
Company Index	77
How to Contact CW	77
Shark Tank	80

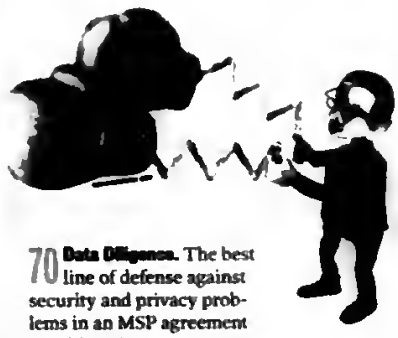
KNOWLEDGE CENTER OUTSOURCING

ASPs, Take Two

Editor's Note: Nine out of 10 application service providers bombed in the dot-com crash, but now they're back with new buzzwords and new capabilities. Here's a guide to the pros and cons. **Package begins on page 61.**

62 **MSPs: The New Hosts.** Users such as Black & Veatch's Michael Lamb prefer next-generation service providers — MSPs — which they say spiff up the traditional application service provider model with customization, engineering, security and maintenance.

68 **Ready for Hosting?** It's cheaper than a full-time worker and provides coverage beyond the 9-to-5 workday. But the managed service provider model is not a one-size-fits-all solution.



70 **Data Diligence.** The best line of defense against security and privacy problems in an MSP agreement is to hire a lawyer.

72 **Five Questions for Your MSP.** Here are some tips for negotiating a contract with a managed service provider and ensuring IT's involvement.

74 **Opinion.** Value-added resellers had better shift to the new MSP model of doing business, or they may not be in business much longer, warns columnist Mark Hall.

The following stories can be found online at computerworld.com/outsourcing/report:

LEGAL POINTERS. Lawyers from around the country weigh in with tips for client companies on negotiating and maintaining agreements with managed service providers.

WEBCAST. There's a new set of terms that describe companies known as ASPs. This webcast looks at the various flavors of application service providers and trends in the ASP industry, ranging from offshoring to vertical market penetration.

DATA POINTS. Download these PowerPoint slides with statistics on outsourcing for your next presentation.

EXECUTIVE BRIEFING. Read about the common issues that IT managers will encounter when planning outsourced technology projects, ranging from evaluating service providers to exiting failed ASP relationships.

COMPUTER COUNSEL. Attorney John Gladstone reviews six issues that outsourcing providers need to tackle in order to maintain flexibility.

AT DEADLINE

SUSE Linux Founder Leaves Novell

Hubert Mantel, one of the founders of the SUSE Linux project, has resigned from Novell Inc. SUSE Linux AG was acquired by Novell in January 2004. Mantel was one of four founders of SUSE, a German consulting group that focused on creating a packaged version of Linux. Earlier this month, Novell restructured its operations with a plan to focus on high-growth markets like Linux.

U.S. Awards Health Care Network Pacts

The U.S. Department of Health and Human Services has awarded contracts totaling $18.6 million to four groups of health care and IT companies to develop prototypes for the Nationwide Health Information Network architecture. The groups, led by Accenture Ltd., IBM, Computer Sciences Corp. and Northrop Grumman Corp., will develop an architecture and a prototype network for secure information sharing among health care organizations.

Dell Results Fall Short of Projections

Dell Inc. reported that third-quarter revenue and earnings came in short of the company's original expectations, an it had warned a week earlier.

	REVENUE	PROFIT
Q3 '06	$13.9B	$606M
Q3 '05	$12.5B	$846M

Microsoft Offers Aid Online for Licensing

Microsoft Corp. today will unveil an online adviser to provide customers with product licensing details. Next spring, Microsoft will add data to the Product Licensing Advisor Web site, including information on product use rights, Software Assurance Program benefits and other information to help customers choose from its array of license options.

Bird Flu Prompts Calls for IT to Plan for Disruptions

Staff shortages feared if major outbreak occurs

BY PATRICK THIBODEAU

THE AVIAN flu has been spreading slowly, with bird infections reported from Southeast Asia to Siberia and a growing number of people dying from the illness. But although the threat of a major outbreak is raising alarms among governments, it doesn't appear to be doing so for many IT managers.

For instance, Stephen Pickett, CIO at Bloomfield Hills, Mich.-based Penske Corp. and president-elect of the Chicago-based Society for Information Management, attended a conference in Detroit last week with about 280 other IT executives. No one at the conference mentioned the bird flu threat, according to Pickett.

"The subject never came up, even though we were discussing various elements of disaster recovery," Pickett said. That may be because companies think their disaster recovery plans, in the aftermath of 9/11, already cover the possibility of significant employee losses and an inability to communicate, he noted. But he also said it's possible that the flu's potential impact hasn't been considered inside corporate IT departments.

Pandemic Predictions

If the avian flu does morph into a pandemic, it will be disruptive. That was made clear in a report issued this month by the U.S. Health and Human Services Department, which said a pandemic would likely attack about 30% of the overall population and about 20% of working adults. The agency said the mortality rate would depend on the flu's virulence.

"Companies do need to think about it, from the boardroom on down," said Roberta Witty, an analyst at Gartner Inc., which is preparing a scenario guide for corporate executives.

Witty said that business and IT managers have to make plans to deal with a flu outbreak. "I can't frankly say that anyone is prepared," she added. "I don't think anyone has dealt with this kind of issue."

A pandemic could leave IT operations short of staff, especially if schools are closed or the federal government imposes quarantines. If a company is running multiple shifts and an IT worker on one becomes infected, "you could lose an entire shift," Witty noted.

A bird in Jakarta, Indonesia, gets vaccinated against the avian flu.

Computerworld reached a half-dozen CIOs last week to ask if they're concerned about the possible impact of the avian flu on operations both overseas and in the U.S. Some declined to discuss the issue.

But others took both sides. "We should be thinking about this, and I will be talking to my [disaster recovery] people this week," the CIO of a large university wrote via e-mail.

"It is not on our radar," said an IT executive at a building products firm, also via e-mail. "All of our operations and employees are U.S.-based, and we haven't discussed it in our company — yet."

Businesses should plan for a potential disruption of up to six weeks, the approximate length of the avian flu's expected first wave, said Robert Gleeson, a doctor and medical director at The Northwestern Mutual Life Insurance Co. in Milwaukee. And if the flu does spread worldwide, companies might have limited options for moving work to different regions. "There may not be people who can come to your rescue," Gleeson said.

Among the things companies can do is develop work-at-home and remote IT management capabilities, set up teleconferencing systems and review their internal emergency notification procedures.

At Children's Hospital Boston, for instance, "most of our key IT staff have the ability to perform management tasks remotely from outside of the hospital," said Daniel Nigrin, CIO and senior vice president of information services at Children's. "So even if they cannot physically get into work, they can deal with issues from wherever they might be."

IBM Unveils Midrange NAS Arrays

Second product line to come from deal with NetApp

BY LUCAS MEARIAN

IBM last week brought out a line of midrange storage arrays that offer network-attached storage capabilities and can transfer data via Fibre Channel and the IP-based Internet SCSI protocol.

The new IBM System Storage N5000 series is aimed at remote offices or enterprises with distributed environments. The systems can be configured for disk-to-disk backup or archiving with write-once, read-many capabilities.

The new systems are manufactured by Network Appliance Inc. as the FAS3020 and FAS3050 systems and are resold by IBM under an agreement signed in April. In September, IBM introduced the 3700 NAS array, a rebranded NetApp FAS270 file server.

NetApp user Steve Rolph, a storage and recovery expert at Sprint Nextel Corp. in Reston, Va., said he believes IBM's relationship with NetApp could help him take advantage of its larger service organization, which can work with an entire infrastructure rather than just a single array. "Any new [NAS] purchases will be done through IBM," he said.

Moving to HP

On the other hand, Brad Slaven, a systems administrator at Northwest Natural Gas Co. in Portland, Ore., said he won't be swayed by the IBM logo on the iSCSI systems. He said his company will likely turn to rival Hewlett-Packard Co. for the technology over the next few years because HP offers better low-end pricing.

Dave Reine, an analyst at The Clipper Group Inc. in Wellesley, Mass., predicted that IBM's service offerings will boost sales of the NetApp technology.

The new IBM System Storage N5200 and N5500 products will be available Dec. 9 in single and dual storage controller models. The N5200 will be priced from $60,000 and the N5500 from $85,000.

Now there's a color printer you'll wont on your team for the long run.

For **vivid color** and **outstanding value** there's nathing like the new Kyocera FS-C5030N, 600 dpi calar printer. It boasts **26 dazzling prints per minute** and the **Lowest Total Cost of Ownership** in its class*. It saves you maney over time, sa naw, you can affard to add calar ta any text document, ar presentatians with charts and images. What's mare, IT people lave this printer because af its **advanced print driver technology** – ane driver, ane install. Na wander Kyocera printers have **won numerous industry awards** for **technology** and averall **reliability**. So get cannected today and **start saving**.

Visit our web site today: **www.kyoceramita.com/newproducts**

People Friendly. A whole new reason to smile.

THE NEW VALUE FRONTIER

KYOCERA

* Source: Current Analysis, Inc.

KYOCERA MITA CORPORATION KYOCERA MITA AMERICA, INC a group company of Kyocera Corporation
©2005 Kyocera Mita Corporation and Kyocera Mita America, Inc. "People Friendly" the Kyocera "smile" and the Kyocera logo are trademarks of Kyocera

GAO Says Navy Sank $1B Into Four Failed ERP Pilot Projects

Military branch disagrees with report's findings

BY MARC L. SONGINI

THE U.S. NAVY has wasted $1 billion since 1998 on four flawed ERP pilot projects based on SAP software, according to the Government Accountability Office.

The GAO said in a September report to Congress that the installations were redundant and incompatible and that they failed to meet Navy requirements because of their limited scope. "In short, the efforts were failures, and $1 billion was largely wasted," the GAO report concluded.

The Navy is now in the midst of an $800 million project to consolidate the pilot efforts and create a mammoth ERP system that is slated to go live in 2011. That project, started two years ago, is also in jeopardy unless best practices are adopted and followed, the GAO report said.

The Navy vigorously disagrees with the GAO's conclusions, said Capt. Tim Hollande, deputy director of Navy ERP programming. "Both the [U.S. Department of Defense] and the Department of the Navy are quite happy with how the pilots have gone," Hollande said. "We've gotten a tremendous amount of knowledge in how to do an enterprise solution in a military environment."

Hollande said that prior to the pilot projects, Navy officials were uncertain whether such implementations were feasible. Now, he said, the Navy is confident that it can do them. "We think we got a lot of value," Hollande said.

The pilot implementations involved separate Navy system commands and a number of systems integrators, including IBM, Electronic Data Systems Corp. and Deloitte & Touche LLP.

Naval Participants

The pilot projects were intended to help modernize the Navy's acquisition and financial management, supply chain and other operations. One system was retired after it served its educational purposes, while the others continue to have limited deployment, Hollande said. The pilot systems still in use will ultimately be retired in favor of the single SAP system, a project now under way that will incorporate the best-of-breed functions from the pilots.

Once it goes live, the converged application will operate in a single data center designed for easy upgrades and cost-effectiveness, said Hollande. The new system will support some 90,000 users globally and extend to nearly every facet of Naval operations. It will replace 280 legacy mainframe and minicomputer-based applications, some of which are 20 years old, Hollande said.

Still, the GAO said the overarching ERP system won't provide an "all-inclusive, end-to-end corporate solution for the Navy," noting that it faces several risks and doesn't include aviation and shipyard operations. The GAO also said the Navy must craft 44 separate software interfaces with other Navy and Defense Department systems and convert data for use in the new software.

As a result, the report calls on the Navy to create metrics to assess project performance and risks. There must also be independent oversight to verify and validate system performance and provide the Navy with unbiased reports. Semiannual reviews of the program should also be implemented, the GAO report said.

Overall, the Navy agreed with the recommendations and is already carrying out some of them, according to Hollande. He said the Navy completed its first validation with SAP AG in September. It's also in discussions with shipyard and aviation operations officials to ensure that they are eventually included in the system, he said.

"Trying to implement ERP on the scale required by the U.S. Navy is . . . rders of magnitude harder and more expensive than the largest of corporate giants would encounter," said Michael Taffe, an analyst at Boston-based AMR Research Inc.

For its part, in a statement, SAP contended that the pilot projects "prove" that off-the-shelf software is a viable ERP solution for the Navy. ▸

Private Consortium Tapped to Advise DOD on Its IT Efforts

BY PATRICK THIBODEAU

In an effort to improve its ability to adopt new technologies, the U.S. Department of Defense has turned to a DOD-funded consortium to help it develop a business process to better tackle IT problems.

The effort is being spearheaded by the World Wide Consortium for the Grid, or W2COG, a private organization operating on a $1.7 million budget funded by the Defense Department.

The W2COG aims to help defense and intelligence agencies meet broad, operational goals by using so-called net-centric collaborative efforts by private-sector firms and others to solve technology problems. The organization includes technical personnel from government, industry and academia.

As the military reshapes its IT infrastructure to make it more integrated and responsive, the model developed by W2COG can be used to quickly solicit new ideas, spur collaboration and improve responsiveness, said U.S. Air Force Maj. Angela Burth.

Burth is assigned to a defense command that works with various branches of the military to develop solutions to technology problems. One key problem the military faces is accessing technology that's being developed in the private sector, said Burth. "We know the technology and capability is out there," she added.

Chris Gunderson, executive director of the Reston, Va.-based W2COG, said his organization will help by posting online the IT problems the government wants to solve and encouraging its members to collaborate on potential solutions. "We're interested in learning about business culture even more than about the technology," he said.

Gunderson noted that many private-sector companies have figured out how to best find collaborators across the globe, teaming up "very quickly and loosely" to address needs. But the military has been known to take up to 10 years to adopt technologies already used in the private sector, he said.

Communications Project

The W2COG, which marked its first anniversary last month, has already used its collaboration process to help develop new ways to deliver emergency communications in disaster-stricken areas.

In that project, a vendor collaboration effort used off-the-shelf technology to create a mobile Internet service to help emergency workers in parts of the Gulf Coast that were hit hard by Hurricane Katrina. The need for a mobile, "hastily formed network" that could provide Internet connectivity and collaboration tools in disaster zones was presented as a problem to the 40 vendors participating in the W2COG.

The companies working together on the project included Rajant Corp., a maker of wireless networks; Cisco Systems Inc.; Redline Communications Inc., a wireless equipment maker; Tachyon Networks Inc., a satellite network provider; Skype Technologies SA; and Microsoft Corp.

> **"We're interested in learning about business culture even more than about the technology."**
>
> CHRIS GUNDERSON, EXECUTIVE DIRECTOR, WORLD WIDE CONSORTIUM FOR THE GRID

Though the military needs the private sector's help in some areas of IT, in other ways it's far ahead of corporate organizations. For example, the Defense Advanced Research Projects Agency, which has a budget of about $2 billion, built some of the technology that underpins the Internet.

"Arguably, the IT world is moving a little faster than the military can anticipate," said Ray Bjorklund, an analyst at Federal Sources Inc. in McLean, Va. The government is often tied down by lengthy budget cycles that require two to three years of planning.

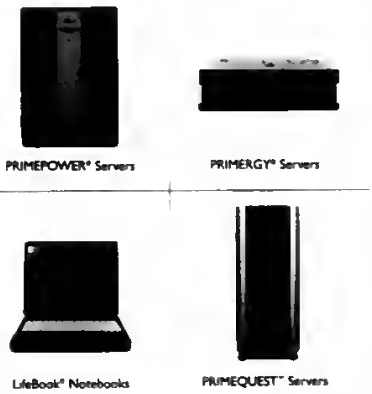
Bjorklund said he sees the W2COG effort as being similar to open-source initiatives that focus on developer integration. "If this consortium is a way of jump-starting collaboration among industries, then great — it's a great tool," he said. ▸

All Types of IT

One Service Source

For multi-vendor, cross-platform service and support, Fujitsu is the one.

From mainframes to servers, notebooks, and Tablet PCs, no other company provides the full spectrum of services to support business-critical computing like Fujitsu. In addition to our own products, we support a variety of platforms such as Sun™, IBM®, and HP, plus OS/390®, UNIX®, Windows® and Linux environments. We also provide services that improve the operation of your existing IT investments and drive down costs. So, if it's critically important to a CIO's IT infrastructure, we service it.



With more than 30 years of direct experience collaborating with our customers and aligning their IT and business objectives, we've learned what it takes to maintain a wide variety of complex, mission-critical IT environments—and deliver a higher level of service for multi-vendor, cross-platform environments. We provide a single point of contact and full accountability to reduce the complexity and cost of support, streamlining operations to offer greater business value.

To learn more reasons why CIOs entrust their IT systems to Fujitsu, visit us.fujitsu.com/computers/services or call 1-800-831-3183.

FUJITSU

THE POSSIBILITIES ARE INFINITE

BRIEFS

Juniper Hires Former ISS Researcher

Former Internet Security Systems Inc. researcher Michael Lynn has landed at networking vendor Juniper Networks Inc. Sunnyvale, Calif.-based Juniper confirmed Lynn's hiring for the undisclosed job just months after he created an international stir at July's Black Hat USA conference by disclosing information about security weaknesses in Cisco Systems Inc. routers. Lynn was forced to quit his ISS job in order to give the presentation.

Investment Firm to Acquire CRM Vendor

Investment firm Francisco Partners Management LLC in Menlo Park, Calif., has agreed to acquire all of CRM software maker FrontRange Ltd.'s outstanding shares. South Africa-based FrontRange valued the deal, expected to close within 90 days, at about $200 million. Under its new ownership, FrontRange plans to continue seeking growth in the midmarket, said CEO Michael McCloskey.

Former Oracle Exec Named Liberty CEO

Greg Maffei, whose resignation as Oracle Corp.'s chief financial officer was disclosed earlier this month, will soon become the CEO of Liberty Media Corp., an Englewood, Colo.-based investment company. The longtime Microsoft Corp. executive was CEO of 360networks Corp. in Seattle for five years before joining Oracle.

CEO Pledges More Palm OS Products

Palm Inc. President and CEO Ed Colligan has penned a letter to Palm's developer community promising to continue releasing Palm OS personal digital assistants and smart phones. There has been unrest among Palm developers over fears that the company's forthcoming Windows Mobile-based Treo smart phone indicated waning support for Palm OS.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

MATTHEW PAULSON

Price of Security Breaches . . .

. . . reaches nearly $14 million per incident. That's according to a study conducted by Ponemon Institute LLC for PGP Corp., a security software vendor in Palo Alto, Calif. Just another vendor-sponsored report slanted to back up breathless marketing claims? Perhaps.

But Larry Ponemon, chairman of his namesake institute, got a firsthand look at 14 companies that made the news this year for losing customer data. Ponemon did individual audits to learn the direct costs borne by the affected companies (such as attorneys' fees and the cost of mailings and calls to affected customers), plus indirect expenses like lost productivity and opportunity costs (such as the long-term revenue hit from customers taking their business elsewhere). Andrew Krcik, PGP's marketing vice president, says he understands that people may quibble about the details of the indirect expenses, but he adds that the $69.8 million in direct costs paid by the 14 surveyed companies ought to be a wake-up call. As a marketer, Krcik thinks the most worrisome finding from the study was that the participating companies lost 2.6% of their customers on average after suffering data breaches.

"Do you know how expensive it is to acquire new customers?" he asks. "A lot."

Control scary protocols . . .

. . . on your network via software running on an appliance. CipherTrust Inc. is releasing software called IronNet that runs on its IronMail appliance and is designed to manage HTTP, peer-to-peer and voice-over-IP protocols, says Jay Chaudry, CEO of the Alpharetta, Ga.-based company. Now you can use CipherTrust's management console to define policies for e-mail and instant messaging plus services supported by the added protocols, Chaudry says. IronNet costs $5,995 and is due early next year.

Restrict PC software to improve . . .

. . . network security while lowering IT costs. According to Jeffrey Hibbard, vice president of marketing at Ardence Inc., the Waltham, Mass.-based company's On-Demand Software pushes software images to desktop PCs after end users log on. Hibbard says the images are based on profiles, so only authorized users can run applications. Across the pond in London, Steve Peskin, co-CEO of Propero Inc., similarly argues that managing PCs is often overly complex and always too costly. Propero sells software called WorkSpace Desktop Virtualization that centralizes applications on servers and virtualizes them on desktops. There are drawbacks to each vendor's approach. For example, Hibbard acknowledges the challenge of controlling applications on laptops, which can't boot software images when they're untethered from a network. And Peskin says that most of Microsoft Corp.'s software still needs to be resident on machines. "We don't completely solve the problem," he refreshingly admits. "But we go a long way toward it."

Defining a corporate vocabulary . . .

. . . improves application development by simplifying what should already be simple. Inside businesses, a customer isn't always who he seems to be. For the accountants, it may be whoever pays invoices; for field-service technicians, it may be the manager of a plant where they do repair work. Keith Feingold, CEO of Contivo Inc. in Mountain View, Calif., thinks that the manifold definitions of common terms inside companies can be troublesome for software developers. What they need is a repository for corporate vocabulary, he says. Feingold's company next month will release a desktop version of Contivo Builder, software that stores

definitions of terms and the application requirements associated with them in XML for easy export. The desktop software costs $499. A server version is due next year.

Linux cluster on wheels rolls out . . .

. . . with up to 24 dual-core blade servers. At a supercomputing conference in Seattle this week, Penguin Computing Inc. will show off a prototype mobile cluster that runs Linux and can be configured with up to 96GB of RAM and more than 2.6TB of storage. The clustered blades are linked via Gigabit Ethernet, says Steve Joachims, vice president of marketing and business development at San Francisco-based Penguin. According to Joachims, Linux is designed specifically for clusters. He notes that you can run the blades in diskless mode and that the Linux kernel is tuned to leave more RAM open for running applications. Putting the cluster on casters makes it ideal for developers who need to test applications in a lab, then move the system back to an office for more debugging. It should ship in the first quarter; pricing will start at about $25,000. ▸

Penguin's "mobile" Linux cluster.

With Sybase® software, Nielsen Media Research enables customers to get real-time access to audience viewing habits through:

- ☑ **800% faster data loads**
- ☑ **a secure, Web-based interface**
- ☑ **70% data compression ratio**

When viewing trends change in the ultra-competitive broadcast industry, Nielsen Media Research and their customers know it instantly. Because they have an information edge that comes from using Sybase IQ – a powerful data analytics server that enables their clients to analyze more data in more ways. Up to 100x faster. And Sybase IQ helps Nielsen provide better service at a lower cost. It's an edge that only we can deliver. And it's why more global companies are tuning-in to Sybase every day. **www.sybase.com/infoedge33**

Copyright ©2005 Sybase, Inc. All rights reserved. Sybase and the Sybase logo are trademarks of Sybase, Inc. ® indicates registration in the United States of America.
All product and company names are trademarks of their respective owners.

SYBASE®

Users Say New Business Objects Tool Overcomes XI Problems

Earlier version was lacking key features, some say

BY HEATHER HAVENSTEIN
ORLANDO

SOME USERS who passed on the business intelligence tools that Business Objects SA unveiled early this year are planning to move to the next release because it promises to ease administrative burdens and forge closer ties between ERP data and spreadsheets.

The first version of the Business Objects XI platform, which integrates BI software with the reporting tools the company acquired from Crystal Decisions, began shipping late last year.

Some organizations opted to wait for Release 2 because the first one lacked support for full-client query and analysis, according to some users at the company's Insight International User Conference here.

Release 2 is slated to begin shipping before the end of the month.

James Young, senior manager for enterprise business intelligence at Allstate Insurance Co. in Northbrook, Ill., said the insurer plans to begin shifting from Business Objects 6.5 to XI Release 2 during the second quarter of next year. With Version 6.5, the company moved to standardize on San Jose-based Business Object's Web-based query and analysis tools.

"We've been waiting on full client integration . . . to put everything on a single server," Young noted.

Release 2 will also allow Allstate to combine server maintenance and load-testing administration teams, he added.

The Clarks Companies NA, a Newton, Mass.-based footwear company, is just now in the final stages of rolling out Business Objects 6.5, the version before XI, said Stephen Katsirubas, vice president of information systems.

Clarks plans to begin upgrading to XI Release 2 in the spring of 2006 because of its ability to manage full-client and Web-based tools on one server, Katsirubas said. In addition, Release 2 will allow the company to integrate multiple data sources for Web-based query and analysis, he added.

Clarks has between 300 and 350 Business Objects 6.5 users and has launched a pilot project to add 500 users at its 170 retail stores, Katsirubas said.

T. Rowe Price Associates Inc. has been beta-testing XI Release 2 for the past two months. Kipton Barkley, project lead at the Baltimore-based company, said he plans to upgrade from Version 5.1 to XI Release 2 in the first half of next year for one of the company's four projects that use Business Objects' tools.

Business Objects XI Release 2 Highlights

- Platform-level support for full-client Business Objects querying and analysis.
- Tools to automatically refresh Microsoft Office applications with BI data.
- An interface that lets users ask questions about business information.
- A reference guide to help users more quickly locate and interpret data.
- A tool to collect and unify BI, ETL and third-party metadata.

Barkley said Release 2 will support reporting and analysis for 2,000 users who access a repository of human resources and financial documents from ERP systems.

In addition to full-client support, Barkley said the company likes the new Live Office feature in Release 2, which integrates with Microsoft Office to allow users to refresh Excel spreadsheets with data from transactional systems.

A high percentage of users at T. Rowe Price run reports and download the results into Excel. Now, users could have the spreadsheets automatically updated, he added.

Dan Vesset, an analyst at IDC, said many companies running older versions of Crystal Reports or Business Objects tools were concerned with server administration and management in the first release of XI. But those concerns have been addressed, and Business Objects has added new user interface features like Live Office, he added. ▸

DHS Questions Security Of FEMA Database

Agency says improvements are under way

BY LINDA ROSENCRANCE

The Federal Emergency Management Agency is not adequately protecting seositive data in its National Emergency Management Information System (NEMIS), according to a report released last week by the U.S. Department of Homeland Security.

FEMA, the agency that came under fire for its slow response to Hurricane Katrina in late August, is part of the DHS's Emergency Preparedness and Response (EP&R) Directorate.

Since the agency received the report from DHS Inspector General Rnbert Skinner in early August, it has developed and maintained many essential security controls for NEMIS, but much more work needs to be done, the report said.

Specifically, the report said that FEMA must implement effective procedures for granting, monitoring and removing user access to the data. The agency must also improve staff contingency training and testing, Skinner said.

In addition, the report cited vulnerabilities on NEMIS servers related to access rights and password administration that must be fixed.

NEMIS, which tracks potential disasters and coordinates response operations, is used by individuals and small businesses to apply for federal assistance. It also processes requests from states for funding of hazard mitigation projects.

"Due to these database security exposures, there is an increased risk that unauthorized individuals could gain access to critical EP&R database resources and compromise the confidentiality, integrity and availability of sensitive NEMIS data," Skinner wrote in the report. "In addition, EP&R may not be able to recover NEMIS following a disaster."

The report called on FEMA to create adequate NEMIS user-access controls and urged it to implement an IT contingency training and testing program for the system. Skinner also said FEMA must develop corrective action plans to address vulnerabilities in NEMIS.

In a formal response to the report, FEMA officials said that they agreed with the recommendations in the draft report received last summer and that they are moving to correct the deficiencies. But Skinner said FEMA has not yet offered a specific plan to address 56 deficiencies and noted that EP&R has still not fully aligned its security program with DHS's overall policies, procedures or practices.

"For example, security controls had not been tested in over a year; a contingency plan has not been tested; security control costs have not been integrated into the life cycle of the system; and system and database administrators have not obtained specialized security training," Skinner wrote.

The NEMIS database, which was implemented in 1998, was designed and developed by Fairfax, Va.-based systems integrator Anteon Corp., using Oracle Corp.'s relational database management system, according to Anteon's Web site. The vendor information was redacted from Skinner's report.

At that time, NEMIS replaced FEMA's legacy system with an integrated client/server architecture consisting of more than 31 networked servers installed nationwide, according to Anteon. ▸

Correction

The title for **Ed Hammersla**, an executive at Trusted Computer Solutions Inc. in Herndon, Va., was listed incorrectly in last week's On the Mark column. Hammersla is the company's chief operating officer.

Users Say New Business Objects Tool Overcomes XI Problems

Earlier version was lacking key features, some say

BY HEATHER HAVENSTEIN
ORLANDO

SOME USERS who passed on the business intelligence tools that Business Objects SA unveiled early this year are planning to move to the next release because it promises to ease administrative burdens and forge closer ties between ERP data and spreadsheets.

The first version of the Business Objects XI platform, which integrates BI software with the reporting tools the company acquired from Crystal Decisions, began shipping late last year.

Some organizations opted to wait for Release 2 because the first one lacked support for full-client query and analysis, according to some users at the company's Insight International User Conference here.

Release 2 is slated to begin shipping before the end of the month.

James Young, senior manager for enterprise business intelligence at Allstate Insurance Co. in Northbrook, Ill., said the insurer plans to begin shifting from Business Objects 6.5 to XI Release 2 during the second quarter of next year. With Version 6.5, the company moved to standardize on San Jose-based Business Object's Web-based query and analysis tools.

"We've been waiting on full client integration . . . to put everything on a single server," Young noted.

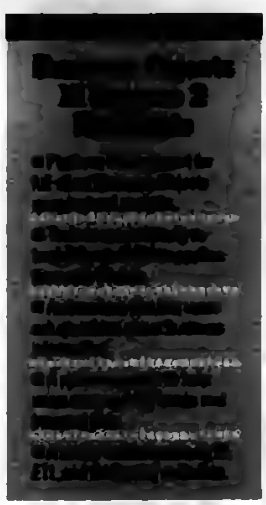
Release 2 will also allow Allstate to combine server maintenance and load-testing administration teams, he added.

The Clarks Companies NA, a Newton, Mass.-based footwear company, is just now in the final stages of rolling out Business Objects 6.5, the version before XI, said Stephen Katsirubas, vice president of information systems.

Clarks plans to begin upgrading to XI Release 2 in the spring of 2006 because of its ability to manage full-client and Web-based tools on one server, Katsirubas said. In addition, Release 2 will allow the company to integrate multiple data sources for Web-based query and analysis, he added.

Clarks has between 300 and 350 Business Objects 6.5 users and has launched a pilot project to add 500 users at its 170 retail stores, Katsirubas said.

T. Rowe Price Associates Inc. has been beta-testing XI Release 2 for the past two months. Kipton Barkley, project lead at the Baltimore-based company, said he plans to upgrade from Version 5.1 to XI Release 2 in the first half of next year for one of the company's four projects that use Business Objects' tools.



Barkley said Release 2 will support reporting and analysis for 2,000 users who access a repository of human resources and financial documents from ERP systems.

In addition to full-client support, Barkley said the company likes the new Live Office feature in Release 2, which integrates with Microsoft Office to allow users to refresh Excel spreadsheets with data from transactional systems.

A high percentage of users at T. Rowe Price run reports and download the results into Excel. Now, users could have the spreadsheets automatically updated, he added.

Dan Vesset, an analyst at IDC, said many companies running older versions of Crystal Reports or Business Objects tools were concerned with server administration and management in the first release of XI. But those concerns have been addressed, and Business Objects has added new user interface features like Live Office, he added. ▸

DHS Questions Security Of FEMA Database

Agency says improvements are under way

BY LINDA ROSENCRANCE

The Federal Emergency Management Agency is not adequately protecting sensitive data in its National Emergency Management Information System (NEMIS), according to a report released last week by the U.S. Department of Homeland Security.

FEMA, the agency that came under fire for its slow response to Hurricane Katrina in late August, is part of the DHS's Emergency Preparedness and Response (EP&R) Directorate.

Since the agency received the report from DHS Inspector General Robert Skinner in early August, it has developed and maintained many essential security controls for NEMIS, but much more work needs to be done, the report said.

Specifically, the report said that FEMA must implement effective procedures for granting, monitoring and removing user access to the data. The agency must also improve staff contingency training and testing, Skinner said.

In addition, the report cited vulnerabilities on NEMIS servers related to access rights and password administration that must be fixed.

NEMIS, which tracks potential disasters and coordinates response operations, is used by individuals and small businesses to apply for federal assistance. It also processes requests from states for funding

of hazard mitigation projects.

"Due to these database security exposures, there is an increased risk that unauthorized individuals could gain access to critical EP&R database resources and compromise the confidentiality, integrity and availability of sensitive NEMIS data," Skinner wrote in the report. "In addition, EP&R may not be able to recover NEMIS following a disaster."

The report called on FEMA to create adequate NEMIS user-access controls and urged it to implement an IT contingency training and testing program for the system. Skinner also said FEMA must develop corrective action plans to address vulnerabilities in NEMIS.

In a formal response to the report, FEMA officials said that they agreed with the recommendations in the draft report received last summer and that they are moving to correct the deficiencies. But Skinner said FEMA has not yet offered a specific plan to address 56 deficiencies and noted that EP&R has still not fully aligned its security program with DHS's overall policies, procedures or practices.

"For example, security controls had not been tested in over a year; a contingency plan has not been tested; security control costs have not been integrated into the life cycle of the system; and system and database administrators have not obtained specialized security training," Skinner wrote.

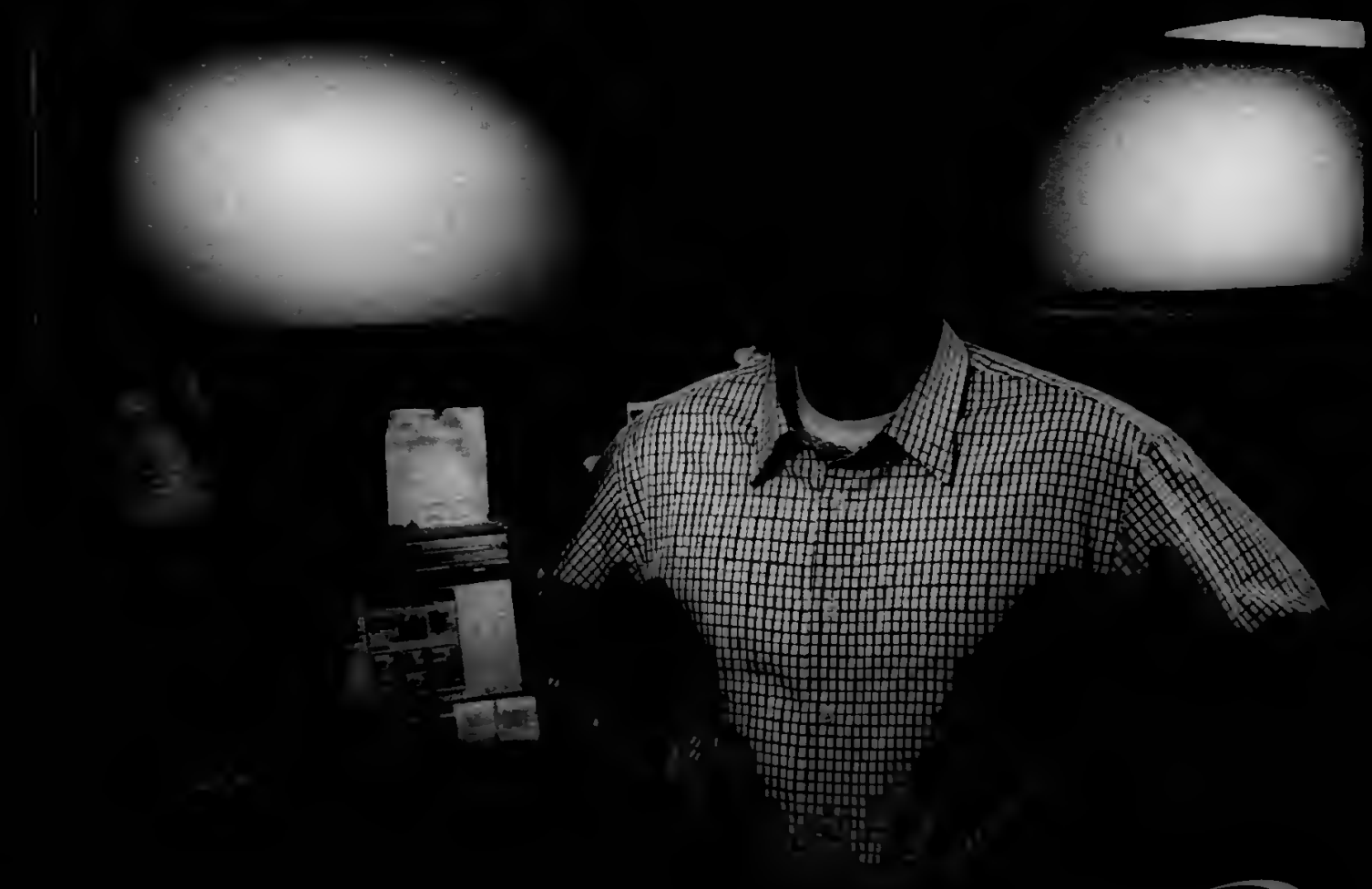
The NEMIS database, which was implemented in 1998, was designed and developed by Fairfax, Va.-based systems integrator Anteon Corp., using Oracle Corp.'s relational database management system, according to Anteon's Web site. The vendor information was redacted from Skinner's report.

At that time, NEMIS replaced FEMA's legacy system with an integrated client/server architecture consisting of more than 31 networked servers installed nationwide, according to Anteon. ▸

Correction

The title for Ed Hammersla, an executive at Trusted Computer Solutions Inc. in Herndon, Va., was listed incorrectly in last week's On the Mark column. Hammersla is the company's chief operating officer.

The security of your entire network
is entirely in your hands.



CDW

BRIEFS

CA Sells Ingres in Streamlining Effort

Computer Associates International Inc. has agreed to sell majority ownership of its Ingres database technology to private equity firm Garnett & Helfrich Capital, which is forming a new company called Ingres Corp. to develop and market the open-source software. CA will retain a minority stake in Ingres and have a seat on its board. Financial terms of the deal weren't disclosed. CA said the Ingres sale was part of an effort to streamline its vast collection of acquired software.

Cisco Reports Solid First-Quarter Sales

Cisco Systems Inc. reported a revenue increase for the first quarter of its 2006 fiscal year but said its net income was reduced by stock-option expenses.

	$6.6B	$1.3B
	$6.0B	$1.4B

Former Oracle Exec Named Borland CEO

Borland Software Corp. has named Tod Nielsen CEO, replacing Dale Fuller, who resigned in July. Nielsen comes to Borland from Oracle Corp., where he was senior vice president of marketing and global sales support. Before that, he spent 12 years in a variety of posts at Microsoft Corp., BEA Systems Inc. and Crossgain Inc. Fuller remains on Borland's board of directors.

Unisys Restates Q3, Adds $1.57B Charge

Unisys Corp. has revised its previously announced financial results for the third quarter, adding a $1.57 billion noncash charge. The struggling vendor had previously reported a net loss of $54.9 million for the quarter, which ended Sept. 30. The loss now amounts to $1.63 billion, said Unisys, which last month disclosed plans to cut 3,000 workers from its staff.

Bill Requiring Notice of Breaches Goes Forward

Critics say measure isn't hard enough on companies that lose customer data

BY JAIKUMAR VIJAYAN

A PROPOSED FEDERAL law that would require companies to notify consumers of data breaches involving their confidential information is being criticized by some security analysts as too ambiguous to be really effective.

The Data Accountability and Trust Act, or DATA, was approved on Nov. 3 by a 13-8 vote along party lines by a House of Representatives subcommittee that's responsible for commerce, trade and consumer protection. A nearly identical bill is under consideration in the Senate. If it becomes law, DATA would override state mandates such as California's SB 1386 Database Breach Notification Act.

In addition to the notification requirements, the proposed bill would require information brokers that collect and sell personal data to notify the Federal Trade Commission about their plans for safeguarding the information they maintain. They also would have to submit to periodic security audits by the FTC in the event of a breach.

While such a national law is needed, the biggest problem with DATA is that it would require companies to inform consumers of data breaches only if they think there's a significant risk of fraud, said Alan Paller, director of the SANS Institute, a security research and training firm in Bethesda, Md.

That would leave an opening for many companies to avoid reporting breaches involving the loss of customer data, as they are required to do under some state laws, Paller said. "I believe that 98% of the time companies are not going to disclose breaches" if they aren't required to, Paller said. "Only 2% are going to be good citizens. It will be the absolute decimation of the impact of the California bill."

What makes such a scenario likely is the fact that often it is next to impossible to link cases of identity theft and fraud back to a specific security breach, said Christopher Pierson, a lawyer at Lewis and Roca LLP in Phoenix.

"By including this language about significant risk, the bill will leave it entirely up to the companies themselves" to decide whether to report a breach, Pierson said.

Some companies would no doubt take advantage of the bill's wording, conceded an internal financial analyst at a New York-based insurer. Even so, there is an overdue need for some sort of minimum threshold that would have to be crossed before companies are required to disclose security breaches, said the analyst, who requested anonymity.

Disclosure laws such as the one in California use a so-called acquisition standard that requires companies to notify consumers each time their data falls into the hands of an unauthorized person, he said. That sort of a trigger, he added, has resulted in an onslaught of notifications, creating "a ludicrous situation" for companies.

DATA also contains ambiguities. For example, Pierson said that the bill, as proposed, doesn't specify a time period within which a company must disclose a data breach to its customers.

In addition, the bill specifies that companies must have policies and procedures for protecting consumer data but doesn't explicitly call for any controls, said Arshad Noor, CEO of StrongAuth Inc., a compliance management services firm in Sunnyvale, Calif.

As with most legislation, DATA has good and bad elements, said Gartner Inc. analyst John Pescatore. Strengthening the FTC's enforcement capabilities would be a positive step, he said. And raising the bar for disclosing breaches isn't automatically a bad thing, according to Pescatore. He seconded the idea that existing laws have produced a "disclosure overload," with companies being forced to admit to every security incident involving customer data.

Despite his overall concerns about the bill, Pierson praised a provision that would exempt companies from reporting breaches if they have encrypted sensitive data. The proposed law is also very explicit about the consumer notification process and what information needs to be included in such notices, he said.

DATA, officially known as H.R. 4127, was authored by Rep. Cliff Stearns (R-Fla.), chairman of the subcommittee that approved the measure. The legislation next goes to the full House Energy and Commerce Committee for further consideration. ▶

Credit Reporting Firm Hit by Theft of Confidential Data

TransUnion LLC, one of the three major credit-reporting companies, last week became the latest large business to report a security lapse involving the potential compromise of confidential customer data.

The Chicago-based company disclosed that a password-protected desktop PC containing Social Security numbers and other personal information belonging to more than 3,600 consumers was stolen from one of its sales offices in California last month. The theft prompted TransUnion to send notices to the people who were affected by the breach, informing them of the theft and offering a year's worth of free credit monitoring services.

TransUnion also has been monitoring the credit reports of affected consumers since the theft occurred, the company said in a statement. "At this point, we do not believe there is any indication of any fraudulent activity," it added.

However, Phil Moghe, CEO of Tizor Systems Inc., a Maynard, Mass.-based vendor of activity auditing tools, said via e-mail that the breach could have a wider impact if information stored on the stolen PC enables whoever has it to access databases holding information about people other than the initial set of victims.

TransUnion maintains credit histories on consumers for use by lenders and other businesses. Its breach is the latest in a series of high-profile data compromises that have raised concerns about identity theft and prompted federal lawmakers to propose several IT security regulations.

The company said that it notified local law enforcement authorities of the break-in and that it has assembled an internal team to investigate the incident.

– JAIKUMAR VIJAYAN

READ MORE ONLINE

For full coverage of IT security, visit our Security Knowledge Center at computerworld.com/security.

Expand both
efficiently and
comfortably.

Sun

GLOBAL

An International IT News Digest

Tata Expands in Latin America Via BPO Buy

BANGALORE, INDIA

TATA CONSULTANCY Services Ltd. last week acquired Comicrom, a business process outsourcing (BPO) vendor in Santiago, Chile, for $23 million. Mumbai, India-based TCS said it expects the move to strengthen its ability to win outsourcing deals in Latin America as well as other Spanish-speaking regions.

Comicrom provides BPO and related IT services to banks, insurance companies, pension funds, government bodies and other large users in Chile. The company will help TCS gain business from the Latin American operations of multinational companies and from customers in other countries where Spanish is the principal language, N. Chandrasekaran, head of global sales and operations at TCS, told reporters here last week.

TCS, which also bought out Comicrom's 49% share of an IT services joint venture set up by the two companies, already operates software development centers in Brazil and Uruguay. With the acquisition of Comicrom and its 1,257 workers, TCS now has about 2,000 employees and more than 100 customers in Latin America.

Comicrom had revenue of $35.5 million in its 2005 fiscal year but needs a significant infusion of funding to grow its operations beyond Chile, according to Chandrasekaran.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Intel Pentium M Chips Relabeled in China

BEIJING

RELABELED VERSIONS of Intel Corp.'s Pentium M mobile processors are being circulated in China by unauthorized distributors trying to pass them off as chips with better performance and higher prices. But Intel contended last week that the problem isn't widespread.

GLOBAL FACT

Total revenue from server sales in the Asia Pacific region during Q2 2005

The relabeled processors that have surfaced in China had been distributed to computer makers as engineering samples and weren't intended to be sold to end users, said Jennifer Liu, an Intel spokeswoman in Beijing.

After Intel became aware of the situation in China, it sent a reminder to hardware makers worldwide that sample chips aren't meant to be resold, Liu said. She advised end users who are worried about buying systems based on relabeled chips to purchase computers only from reputable dealers.

■ SUMNER LEMON, IDG NEWS SERVICE

IBM Agrees to Buy IT Services Firm in India

BANGALORE, INDIA

IBM LAST week said it has agreed to buy Network Solutions Ltd., an IT services company based here.

IBM said that after the acquisition is finalized, Network Solutions will become a wholly owned subsidiary. It didn't disclose the terms of the deal, which is expected to be completed within a month.

Network Solutions offers IT infrastructure management and network design services, and it installs converged data, voice and video networks. The privately held company has been profitable for the past 12 years, said managing director Sudhir Sarma, who added that Network Solutions' current management team will remain in place after the acquisition is completed.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

[illegible] International has awarded LM Ericsson Telephone Co. a $26 million contract to upgrade its GSM cellular networks in Kenya, Uganda and Tanzania. Hoofddorp, Netherlands-based Celtel operates mobile phone systems in 13 African countries. Stockholm-based Ericsson has started the upgrades in Tanzania and Uganda and is scheduled to begin work in Kenya next month.

■ MICHAEL MALAKATA, IDG NEWS SERVICE

[illegible].com Inc., a Beijing-based Internet portal operator, last week said it has been named the official sponsor of Internet content services for the 2008 Olympic Summer Games. Sohu has built and will manage and host the Web site for the Beijing Organizing Committee for the Games of the XXIX Olympiad.

■ SUMNER LEMON, IDG NEWS SERVICE

[illegible] in Dublin, Calif., said it has acquired Advanced Network Services Group, a Tokyo-based provider of software development outsourcing services. ANS has 200 workers in Tokyo and at facilities in Beijing, Shanghai and Dalian, China. The purchase price wasn't disclosed.

Alliance Launches Effort to Link Authentication Tools

BY JAIKUMAR VIJAYAN

The Liberty Alliance Project, a consortium of companies that's working on federated identity management standards, last week announced the creation of a group that will focus on developing interoperability specifications for so-called strong authentication tools.

The Strong Authentication Expert Group (SAEG) includes American Express Co., Financial Services Technology Consortium Inc. (FSTC), Oracle Corp., VeriSign Inc. and the Defense Manpower Data Center within the U.S. Department of Defense.

Roger Sullivan, a Liberty Alliance board member, said the new group will try to speed up the development of strong authentication interoperability standards, specifically for federated networks where end users can use one set of identity credentials to gain access to multiple network domains.

But Sullivan, who is a vice president of business development at Oracle, added that "the principles of what we are discussing" could also be applied in network environments that aren't federated.

For that reason, the initiative should be relevant to the retail banking industry, said Jim Salters, director of technology development and business initiatives at the New York-based FSTC. He noted that banks face a deadline of Dec. 31, 2006, for implementing stronger processes for authenticating online customers under guidelines issued last month by the Federal Financial Institutions Examination Council.

The SAEG's Identity Strong Authentication Framework will be designed to enable technologies such as smart cards, tokens and biometric tools to interoperate across organizations, networks and vertical market segments. The first draft of the framework, which is referred to informally as ID-Safe, is expected to be completed by mid-2006.

Meanwhile, the FSTC is developing its own set of guidelines and standards for improving mutual authentication processes between banks and online customers.

The blueprint for mutual

authentication is being developed by a 25-member group, including representatives from eight of the top 10 banks in the U.S., Salters said. He added that the goal is to make it easier for financial institutions to deploy strong authentication technologies and for consumers to adopt them.

The process brings financial institutions together "to discuss the commonalities that need to be in place for deploying stronger authentication," Salters said.

An initial set of specifications is due in next year's first quarter. The FSTC will also create a list of the interoperability and technology features that the financial industry needs to work on or provide to IT vendors, Salters said.

Another group working toward similar goals is the Initiative for Open Authentication, or Oath, which has a membership made up largely of IT vendors. Oath is developing interoperability standards and a reference architecture to foster the adoption of stronger

GLOBAL

An International IT News Digest

Tata Expands in Latin America Via BPO Buy

BANGALORE, INDIA

TATA CONSULTANCY Services Ltd. last week acquired Comicrom, a business process outsourcing (BPO) vendor in Santiago, Chile, for $23 million. Mumbai, India-based TCS said it expects the move to strengthen its ability to win outsourcing deals in Latin America as well as other Spanish-speaking regions.

Comicrom provides BPO and related IT services to banks, insurance companies, pension funds, government bodies and other large users in Chile. The company will help TCS gain business from the Latin American operations of multinational companies and from customers in other countries where Spanish is the principal language, N. Chandrasekaran, head of global sales and operations at TCS, told reporters here last week.

TCS, which also bought out Comicrom's 49% share of an IT services joint venture set up by the two companies, already operates software development centers in Brazil and Uruguay. With the acquisition of Comicrom and its 1,257 workers, TCS now has about 2,000 employees and more than 100 customers in Latin America.

Comicrom had revenue of $35.5 million in its 2005 fiscal year but needs a significant infusion of funding to grow its operations beyond Chile, according to Chandrasekaran.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Intel Pentium M Chips Relabeled in China

BEIJING

RELABELED VERSIONS of Intel Corp.'s Pentium M mobile processors are being circulated in China by unauthorized distributors trying to pass them off as chips with better performance and higher prices. But Intel contended last week that the problem isn't widespread.

GLOBAL FACT

The relabeled processors that have surfaced in China had been distributed to computer makers as engineering samples and weren't intended to be sold to end users, said Jennifer Liu, an Intel spokeswoman in Beijing.

After Intel became aware of the situation in China, it sent a reminder to hardware makers worldwide that sample chips aren't meant to be resold, Liu said. She advised end users who are worried about buying systems based on relabeled chips to purchase computers only from reputable dealers.

■ SUMNER LEMON, IDG NEWS SERVICE

IBM Agrees to Buy IT Services Firm in India

BANGALORE, INDIA

IBM LAST week said it has agreed to buy Network Solutions Ltd., an IT services company based here.

IBM said that after the acquisition is finalized, Network Solutions will become a wholly owned subsidiary. It didn't disclose the terms of the deal, which is expected to be completed within a month.

Network Solutions offers IT infrastructure management and network design services, and it installs converged data, voice and video networks. The privately held company has been profitable for the past 12 years, said managing director Sudhir Sarma, who added that Network Solutions' current management team will remain in place after the acquisition is completed.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

Calixi International has awarded LM Ericsson Telephone Co. a $26 million contract to upgrade its GSM cellular networks in Kenya, Uganda and Tanzania. Hoofddorp, Netherlands-based Calixi operates mobile phone systems in 19 African countries. Stockholm-based Ericsson has started the upgrades in Tanzania and Uganda and is scheduled to begin work in Kenya next month.

■ MICHAEL MALAKATA, IDG NEWS SERVICE

Sohu.com Inc., a Beijing-based Internet portal operator, last week said it has been named the official sponsor of Internet content services for the 2008 Olympic Summer Games. Sohu has built and will manage and host the Web site for the Beijing Organizing Committee for the Games of the XXIX Olympiad.

■ SUMNER LEMON, IDG NEWS SERVICE

Achievo Corp. in Dublin, Calif., said it has acquired Advanced Network Services Group, a Tokyo-based provider of software development outsourcing services. ANS has 200 workers in Tokyo and at facilities in Beijing, Shanghai and Dalian, China. The purchase price wasn't disclosed.

Alliance Launches Effort to Link Authentication Tools

BY JAIKUMAR VIJAYAN

The Liberty Alliance Project, a consortium of companies that's working on federated identity management standards, last week announced the creation of a group that will focus on developing interoperability specifications for so-called strong authentication tools.

The Strong Authentication Expert Group (SAEG) includes American Express Co., Financial Services Technology Consortium Inc. (FSTC), Oracle Corp., VeriSign Inc. and the Defense Manpower Data Center within the U.S. Department of Defense.

Roger Sullivan, a Liberty Alliance board member, said the new group will try to speed up the development of strong authentication interoperability standards, specifically for federated networks where end users can use one set of identity credentials to gain access to multiple network domains.

But Sullivan, who is a vice president of business development at Oracle, added that "the principles of what we are discussing" could also be applied in network environments that aren't federated.

For that reason, the initiative should be relevant to the retail banking industry, said Jim Salters, director of technology development and business initiatives at the New York-based FSTC. He noted that banks face a deadline of Dec. 31, 2006, for implementing stronger processes for authenticating online customers under guidelines issued last month by the Federal Financial Institutions Examination Council.

The SAEG's Identity Strong Authentication Framework will be designed to enable technologies such as smart cards, tokens and biometric tools to interoperate across organizations, networks and vertical market segments. The first draft of the framework, which is referred to informally as ID-Safe, is expected to be completed by mid-2006.

Meanwhile, the FSTC is developing its own set of guidelines and standards for improving mutual authentication processes between banks and online customers.

The blueprint for mutual authentication is being developed by a 25-member group, including representatives from eight of the top 10 banks in the U.S., Salters said. He added that the goal is to make it easier for financial institutions to deploy strong authentication technologies and for consumers to adopt them.

The process brings financial institutions together "to discuss the commonalities that need to be in place for deploying stronger authentication," Salters said.

An initial set of specifications is due in next year's first quarter. The FSTC will also create a list of the interoperability and technology features that the financial industry needs to work on or provide to IT vendors, Salters said.

Another group working toward similar goals is the Initiative for Open Authentication, or Oath, which has a membership made up largely of IT vendors. Oath is developing interoperability standards and a reference architecture to foster the adoption of stronger

WE MAKE IT WORK

FOR THE MOBILE WORKFORCE

Insight

www.insight.com/CW ▼ 800.998.8052

Source Code: AD021

Insight and the Insight logo are registered trademarks of Insight Direct USA, Inc. IT For The Way You Work is a trademark of Insight Direct USA, Inc. All other trademarks, registered trademarks, photos, logos and illustrations are property of their respective owners.

©2005 Insight Direct USA, Inc. All rights reserved.

Continued from page 1

SQL Server

enterprise user after another who said they have already adopted SQL Server 2005 to handle their largest, most heavily accessed databases.

For example, AIM Healthcare Services Inc., a Franklin, Tenn.-based company that audits health claims and payment forms for insurers and hospitals, is running a 9TB database on SQL Server 2005. That's the sixth-largest database used for online transaction processing (OLTP) worldwide, according to a September ranking by Winter Corp. in Waltham, Mass.

AIM migrated from a Unix-based Oracle database to SQL Server, which is installed on an IBM xSeries server with eight Intel processors. Adam Solesby, director of strategic development at AIM, said that SQL Server 2005 offers better features at a lower price than Oracle Corp.'s software does.

"Our needs are focused around . . . managing the sheer volume of data we have," Solesby said. He pointed to SQL Server 2005's scalability options as a key feature for his company, which plans to eventually support up to 12,000 concurrent users on its database.

Barnes & Noble Inc. is using a 3TB data warehouse running on a 64-bit version of SQL Server 2005 to analyze the sales of its 7.3 million products.

"The raw performance, as well as the price/performance ratio, was incredible," said Chris Troia, CIO at the New York-based bookseller.

Troia added that Barnes & Noble is increasing the amount of information stored in the data warehouse from three years' worth of sales transactions to five.

Nasdaq Stock Market Inc. has replaced aging Tandem mainframes that were used to disseminate market trade data with a Windows-based system that's equipped with SQL Server 2005. The database server can process 5,000 transactions per second and 100,000 queries per day, and it can handle 8 million new rows of data on a daily basis, said Ken Richmond, vice president of engineering at Nasdaq.

Microsoft has long dominated the low-end Windows database market. According to Gartner Inc., the company controlled exactly half of that part of the market last year. But Microsoft's overall market share was about 20%, and it hopes to use SQL Server 2005 to chip away at the high-end strongholds of Oracle's 10g database and IBM's DB2.

To try to attract enterprise users, Microsoft is trumpeting a collection of high-performance features in SQL Server 2005, such as database partitioning, parallel index creation, 64-bit processor support and, by the middle of next year, database mirroring.

Small Market Share

But in a report issued earlier this year, Forrester Research Inc. estimated that out of 2,000 databases larger than 1TB worldwide, only about 80 — or 4% of the total — ran SQL Server, with the bulk of the rest running Oracle or DB2.

Philip Howard, a database analyst at Bloor Research in Towcester, England, said Microsoft is making a strong case that SQL Server 2005 can scale enough to handle enterprise-class OLTP databases. But he added that he thinks Oracle, IBM and NCR Corp.'s Teradata unit all continue to hold an edge over Microsoft for large data warehouses.

"I see SQL Server challenging Oracle in areas such as analysis services and data marts, but for big data warehouses? No," Howard said.

A group director of database management at an information provider to the pharmaceutical industry said it's unlikely that his company will move beyond its current strategy of using SQL Server only where it needs a cost-effective database.

The database management director, who asked not to be named, said he's aware that there are some "major-league" data warehouses using SQL Server. But Oracle "was there first" and has more third-party tools supporting its databases, he noted. In addition, Microsoft is still playing catch-up on database partitioning and doesn't have a grid computing option, he said. ▸

Computerworld's Carol Sliwa and Elizabeth Montalbano of the IDG News Service contributed to this story.

Database Rankings by Size

The largest SQL Server databases worldwide, as of September:

User	Type	Size
U.S. Postal Service	Data warehouse	19.5TB
AIM Healthcare Services	OLTP	9TB
Verizon Communications	OLTP	7.8TB

SOURCE: [illegible]

Ballmer Looks to Change Users' Views of Database

SAN FRANCISCO

Microsoft Corp. CEO **Steve Ballmer** last week said SQL Server 2005 should eliminate any "last bit of hesitancy" that enterprise users may have about the database's ability to scale. Ballmer spoke with *Computerworld* at the launch of the SQL Server upgrade, Visual Studio 2005 and BizTalk Server 2006, discussing the new products and other topics. Excerpts follow:

Many large companies have been hesitant to use SQL Server as an enterprise-class database. How do you get through to that segment? I think enterprises do take it seriously. The question is, can we eliminate all hesitancy with this set of releases? And if you take a look at the database benchmarks, at the app platform benchmarks, at the SAP benchmarks, at the customer references, I really do think we can change not only the reality with this set of releases, but I think we're in a position to change what I'll call the last bit of hesitancy in the perception [of SQL Server's scalability], at least relative to Unix.

Versus Oracle, has it been a question of scalability, stability, features or something else? I would argue it's been a question of perception, not of any of the above. We hope to not only be better with this set of releases but to have people understand that we are better. And we'll see.

You had a five-year cycle between SQL Server releases. What did you learn from the experience? Do you feel you lost some sales opportunities? I want to have more rapid releases, but man, we've been gaining market share this whole period of time. Now that we've got the new release, woo baby. I think we're in a great spot.

It was more important for us to get .Net integrated into the SQL runtime [than to ship the database sooner]. I do think we should have had the ability to release some of the other exciting features while we were still cooking and baking that. We batched everything up and therefore we did a very long release cycle. But if you take a look at the [business intelligence] stuff, there's this set of things that we could have brought to market on a shorter time frame.

So I'm telling our teams, there's some stuff we're going to be doing that's coming on a six- and nine-month cycle, whether it's service packs or whatever. There's going to be stuff that'll ship on a two-year cycle, and there's stuff that probably won't ship but [on] a four-year cycle, when it's really big, hunky, thorny stuff.

Some SQL Server users who signed three-year contracts for your Software Assurance program may not have gotten an upgrade before the contracts expired. Is there any chance you'll guarantee a product release as part of a licensing deal? Certainly for our desktop products, people are anticipating a release. But we're very clear. We're going to try to give a value proposition that doesn't have an upgrade commitment. There's all kinds of complexity — legal complexity, accounting complexity — associated with that proposition.

At the server level, the biggest part of the value proposition for Software Assurance frankly isn't the upgrade. If you really take a look, do most people go back and upgrade a legacy server application? The answer is no. But they do want to make sure that they have the kind of support, patching [and] fixing to keep that thing in production and up and running.

The Enterprise Edition of Windows Vista will be available only to users who have Software Assurance. Is it possible that you'll change your mind about that? No. I think we like the decision that we've made. And the customers we talked to seem to like the decision.

Essentially, what we're saying is there's a set of technology that is an extra price option, and because that is a class of customer, the enterprise, that will care about that technology but will also care about [Software] Assurance, we've put that together. I've heard essentially no significant negative feedback about that.

Is there any chance you'll support the Open Document Format, which the Massachusetts government's IT division adopted as its standard? We've announced support today for the PDF format, which is one of the interoperability formats the state of Massachusetts has indicated. We have our own formats for doing kind of bridge documents of our own styles. So I think that's where our energies are focused right now.

Never say never? That's where our energies are focused.

— CAROL SLIWA

Continued from page 1

SQL Server

enterprise user after another who said they have already adopted SQL Server 2005 to handle their largest, most heavily accessed databases.

For example, AIM Healthcare Services Inc., a Franklin, Tenn.-based company that audits health claims and payment forms for insurers and hospitals, is running a 9TB database on SQL Server 2005. That's the sixth-largest database used for online transaction processing (OLTP) worldwide, according to a September ranking by Winter Corp. in Waltham, Mass.

AIM migrated from a Unix-based Oracle database to SQL Server, which is installed on an IBM xSeries server with eight Intel processors. Adam Solesby, director of strategic development at AIM, said that SQL Server 2005 offers better features at a lower price than Oracle Corp.'s software does.

"Our needs are focused around . . . managing the sheer volume of data we have," Solesby said. He pointed to SQL Server 2005's scalability options as a key feature for his company, which plans to eventually support up to 12,000 concurrent users on its database.

Barnes & Noble Inc. is using a 3TB data warehouse running on a 64-bit version of SQL Server 2005 to analyze the sales of its 7.3 million products.

"The raw performance, as well as the price/performance ratio, was incredible," said Chris Troia, CIO at the New York-based bookseller.

Troia added that Barnes & Noble is increasing the amount of information stored in the data warehouse from three years' worth of sales transactions to five.

Nasdaq Stock Market Inc. has replaced aging Tandem mainframes that were used to disseminate market trade data with a Windows-based system that's equipped with SQL Server 2005. The database server can process 5,000 transactions per second and 100,000 queries per day, and it can handle 8 million new rows of data on a daily basis, said Ken Richmond, vice president of engineering at Nasdaq.

Microsoft has long dominated the low-end Windows database market. According to Gartner Inc., the company controlled exactly half of that part of the market last year. But Microsoft's overall market share was about 20%, and it hopes to use SQL Server 2005 to chip away at the high-end strongholds of Oracle's 10g database and IBM's DB2.

To try to attract enterprise users, Microsoft is trumpeting a collection of high-performance features in SQL Server 2005, such as database partitioning, parallel index creation, 64-bit processor support and, by the middle of next year, database mirroring.

Small Market Share

But in a report issued earlier this year, Forrester Research Inc. estimated that out of 2,000 databases larger than 1TB worldwide, only about 80 — or 4% of the total — ran SQL Server, with the bulk of the rest running Oracle or DB2.

Philip Howard, a database analyst at Bloor Research in Towcester, England, said Microsoft is making a strong case that SQL Server 2005 can scale enough to handle enterprise-class OLTP databases. But he added that he thinks Oracle, IBM and NCR Corp.'s Teradata unit all continue to hold an edge over Microsoft for large data warehouses.

"I see SQL Server challenging Oracle in areas such as analysis services and data marts, but for big data warehouses? No," Howard said.

A group director of database management at an information provider to the pharmaceutical industry said it's unlikely that his company will move beyond its current strategy of using SQL Server only where it needs a cost-effective database.

The database management director, who asked not to be named, said he's aware that there are some "major-league" data warehouses using SQL Server. But Oracle "was there first" and has more third-party tools supporting its databases, he noted. In addition, Microsoft is still playing catch-up on database partitioning and doesn't have a grid computing option, he said. ▸

Computerworld's Carol Sliwa and Elizabeth Montalbano of the IDG News Service contributed to this story.

Database Rankings by Size

The largest SQL Server databases worldwide, as of September:

User	Type	Size
U.S. Postal Service	Data warehouse	18.5TB
AIM Healthcare Services	OLTP	9TB
Verizon Communications	OLTP	7.8TB

SOURCE: WINTER CORP., WALTHAM, MASS.

Hewlett-Packard Ships Off Renamed AppIQ Software

With acquisition done, companies' tools are linked

BY LUCAS MEARIAN

Hewlett-Packard Co. earlier this month started shipping the next generation of the storage resource management software it gained as part of its recent acquisition of AppIQ Inc.

The new version, Storage Essentials 5.0, has been integrated with Systems Insight Manager (SIM), HP's server management software. The software had been called Storage Authority by AppIQ, whose acquisition by HP officially closed late last month.

The Storage Authority-SIM integration will allow users to view both applications on a single screen. The Storage Essentials software can automatically discover and register all physical and logical storage assets as well as the applications associated with those assets, HP said.

Jeff Hill, a systems and storage administrator at Exempla Healthcare, which manages three hospitals in the Denver area, said that he started beta-testing the new version five weeks ago. He uses it to manage his HP ProLiant servers and storage infrastructure with a single monitor.

He said the reporting tools allow his managers to use Storage Essentials for charge-back purposes.

"The AppIQ tool is a little more intuitive" than the HP OpenView software it is replacing, he said.

"It gives you a little cleaner interface, and the reporting tools are more robust," Hill said. "That's something I'm pretty stoked about because that gives me a chance to pass information on to my management so they can make

business decisions about our storage."

Frank Harbist, vice president and general manager of HP's information life-cycle management and StorageWorks software, said HP also plans to add more management tools to Storage Essentials through application programming interfaces in the AppIQ technology.

Such tools, as well as cluster virtualization, grid management and enhanced reporting tools, can be used in HP BladeSystem environments, he said.

"Fifty percent of all server shipments over the next couple of years will be in blades, so our focus in terms of moving this technology forward — allowing for automation capabilities — will really be around blade system environments," Harbist said.

On the traditional server side, Harbist said HP plans to use EMC Corp.'s VMware virtualization software to create virtual partitions. The company also plans to add storage virtualization, or the pooling of storage assets behind a layer of abstraction, he said.

Well that's done.
Happiness is a dependable Ricoh color printer.

Ricoh dependability moves your ideas forward.

RICOH™

ricoh-usa.com/itchannel
©2005 Ricoh Corporation.

SAP CEO Faces Up to Competing With Partners

Company is working with emerging rivals Microsoft, Business Objects

BY JOHN BLAU

THE LIST of challenges facing SAP AG CEO **Henning Kagermann** appears to be endless as competition increases from Oracle Corp., Microsoft Corp., Salesforce.com Inc. and emerging open-source firms. Despite a heavy workload, the straight-talking executive found time last week to discuss those challenges.

How has the Oracle buying spree affected you and your customers? Our customers have no disadvantages. We will continue to support products from competitors as we have done in the past. We are professional enough to handle co-opetition.

What is the impact of Oracle's acquisitions on the industry? Over the past four years, we gained market share and created a bigger distance to Oracle. So Oracle bought some market share to reduce this distance. They now try to compete on price.

How is your relationship with Microsoft after the failed merger talks a year or so ago, and in the ongoing Mendocino project to link your applications with Office? We have a good working relationship with Microsoft, Mendocino being a prime example. [And] there are others, such as improving the interconnectivity of .Net and NetWeaver. We have a relationship that works well, and we have no intent to change it.

How serious is the threat of hosted services to SAP, and are you still planning to launch a hosted product line? We said in June that some announcements will come, and this is still true. Today we offer hosted services, [and we] partner with hosting companies.

How will the SAP hosting service work? We will be offering a service that will help customers deploy certain functions of our software products much faster, similar to what Salesforce does. The real benefit of Salesforce is not the hosting opportunity, but rather the fact that the company has selected some functionalities that it can deploy very fast.

How does the expansion of business intelligence functions in NetWeaver impact your partnership with Business Objects and others? This is another example of co-opetition. We have extended our analytics capabilities with SAP Analytics. We have made it very clear to the market that embedded analytics is the future and that analytic capabilities are part of end-to-end business processes. On the other hand, there are specialists, such as Business Objects, who are interested in working closer with SAP because we have joint clients. We're not fighting them in this area.

Are you concerned at all about Microsoft's recent move to add BI capabilities to SQL Server? We treat Microsoft like any other partner. In fact, I see a good opportunity for us to embed some analytic capabilities in our joint offering, Mendocino. Analytics is just another area where we have some overlap with Microsoft, but it's not an area that will stop us from continuing to cooperate.

How much competition are you expecting from emerging open-source application companies like SugarCRM, which offer low-cost software to smaller companies? I don't believe business applications are a field for open-source. The Linux operating system is one thing. It's well defined and developed by a community used to programming. Applications are another story, particularly business applications. Designing applications to run business processes requires very strong governance. And I have my doubts if a community can achieve this.

Blau is a reporter for the IDG News Service.

Investment Firm Buys Geac and Sends ERP Software to Infor Global

New company to get remaining products in a $1 billion deal

BY STACY COWLEY

Private equity firm Golden Gate Capital Corp. last week agreed to buy business software maker Geac Computer Corp. for about $1 billion.

The plan is to split up Geac, which in recent years has made numerous acquisitions, according to Golden Gate Capital.

The Markham, Ontario-based company's ERP software — including System21, Runtime, RatioPlan, Streamline and Management Data — will become the property of another Golden Gate Capital-funded company, Infor Global Solutions. The remaining product lines will form the basis of a new, as yet unnamed company.

The companies expect the deal to close early next year.

Geac, which bills its products as "software for the CFO," reported a profit of $77 million on revenue of $444.4 million in the fiscal year that ended April 30. The enterprise applications business drove 80% of Geac's revenue last year, the company said in its annual report.

The software that Infor is acquiring accounts for about a quarter of Geac's revenue, said Infor President and Chief Operating Officer Ken Walters.

Formidable Player

Infor is becoming a formidable player in the ERP market, with a portfolio built through acquisitions, including the company's $350 million purchase of Mapics Inc. earlier this year.

The privately held company, based in Alpharetta, Ga., sells its products mostly to companies with less than $250 million in annual revenue. Infor has 2,300 employees and 18,000 customers worldwide.

The new company to be formed by San Francisco-based Golden Gate Capital will include two business units built around Geac's remaining assets. It will be headed by a CEO who will be named prior to the closing of the transaction.

The new company's financial applications unit will focus on Geac's Enterprise Server, SmartStream, Anael, Extensity and Comshare products. Meanwhile, an industry-specific applications group will concentrate on serving vertical industries, including libraries, local governments and restaurants, Geac said.

Before accepting Golden Gate's offer, Geac's management team spoke with two-dozen potential suitors, Geac CEO Charles Jones said in a conference call with analysts.

Jones said Golden Gate had deep pockets and enough resources to back Geac's technology plans. "Golden Gate is committed to continuing the vital support of Geac's products," he said.

Analysts at Boston-based AMR Research Inc. said in a report that Geac's fate illustrates that simply gobbling up lots of applications with lucrative maintenance revenue streams won't be enough to ensure vendor viability.

"[Geac] lagged behind most vendors in technology innovation and deep verticalization for the customers it served," the report said. "In its model, its only way to sustain and grow margins was to continue on the acquisition trail. But the continued consolidation in the software market made those acquisitions more difficult — particularly at the price points it was willing to pay."

Joshua Greenbaum, an analyst at Enterprise Applications Consulting in Berkeley, Calif., added that the sale of Geac will likely benefit shareholders and management more than customers.

The Geac portfolio will mostly be used as a cash cow that generates maintenance revenue, he said. Greenbaum said he doesn't expect the new firm to spend significant research and development dollars to update products.

Cowley is a reporter for IDG News Service. Marc L. Songini contributed to this story.

New System Promises to Help FAA Detect, Respond to Threats

Security event management tool can sift through torrents of information

BY JAIKUMAR VIJAYAN

The Federal Aviation Administration has just finished installing a security event management system designed to help the agency better detect and respond to external and internal threats.

The new FAA system is based on ArcSight Inc.'s Enterprise Security Management (ESM) software, which allows users to centrally monitor, collect and analyze information from multiple network security devices, including intrusion-detection systems and firewalls.

The system is part of a broader FAA effort initiated after the 2001 terrorist attacks to bolster its network defenses and incident-response capabilities, according to Michael Brown, director of the Office of Information Systems Security at the FAA.

"We were looking for a way to manage the large volume of information coming from multiple [network] sources [and] do a lot of correlation and data reduction," he said. Brown said the agency hopes the new system can help it manage the large amount of information generated by security systems.

ArcSight's ESM, like other products in its class from vendors such as netForensics Inc., NetIQ Corp. and Intellitactics Inc., is designed to quickly sift through the torrent of data generated by multiple security devices and to focus on the most important information.

A Million Alerts Per Day

At the FAA, for instance, firewalls, system log files, vulnerability scanners and intrusion-detection systems can together

generate more than 1 million alerts per day — only a very small fraction of which merit any follow-up, according to Brown.

"At the end of the day, after all the analysis has been done, we are looking at roughly 15 to 20 [important] alerts," he said.

Apart from transforming raw event data into usable intelligence for security and network administrators, security event management tools such as those from Cupertino, Calif.-based ArcSight can be useful for forensic analysis after a terrorist attack, Brown said.

Like other agencies, the FAA — which is part of the U.S. Department of Transportation — is subject to audits by the Government Accountability Office and is required to implement strong incident-response capabilities under the Federal Information Security Management Act.

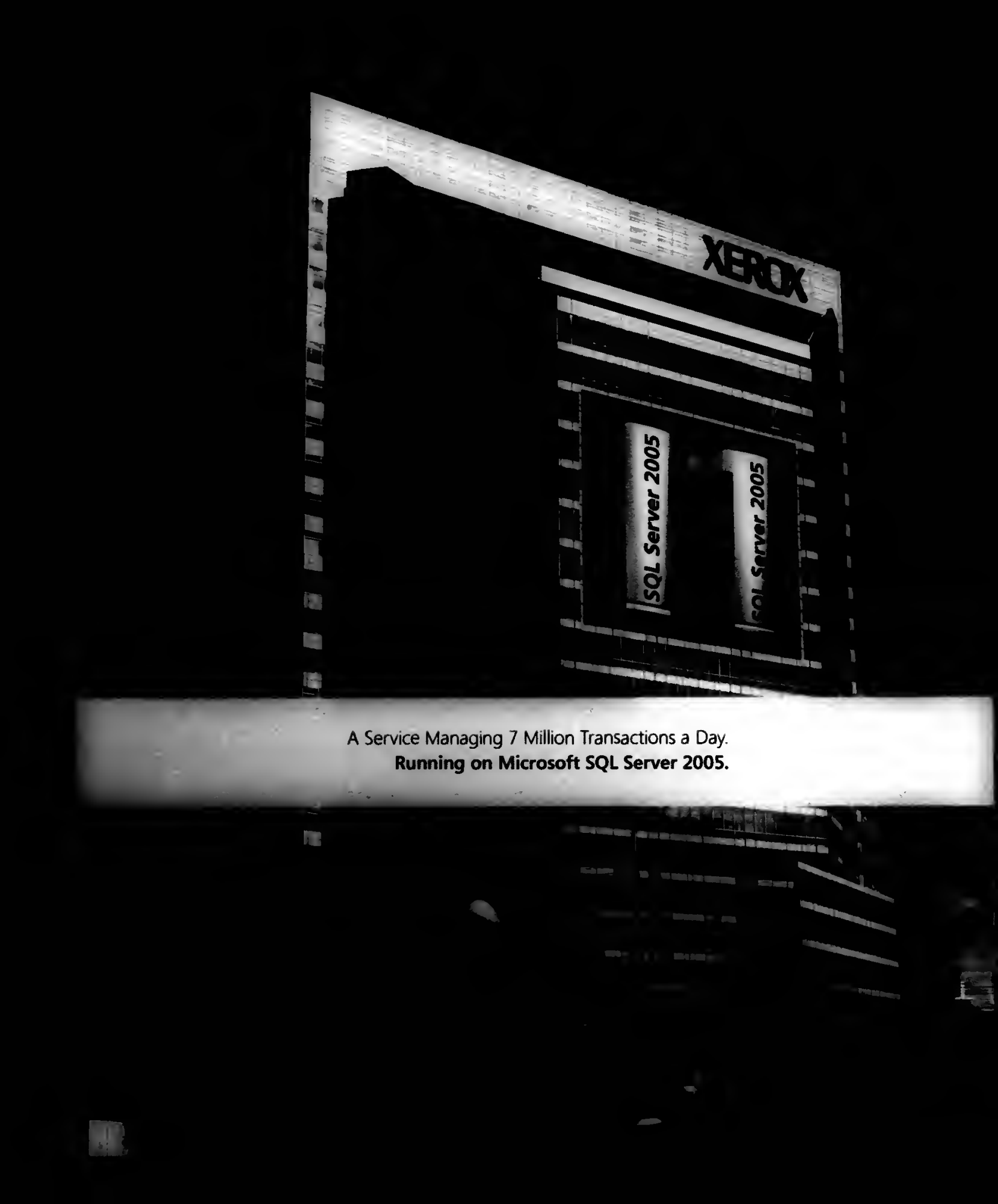
The new event management capability will allow the FAA to create an auditable security infrastructure to demonstrate compliance with such requirements, Brown said.

Ricoh dependability moves your ideas forward.

RICOH™

ricoh-usa.com/itchannel

©2005 Ricoh Corporation.



A Service Managing 7 Million Transactions a Day.
Running on Microsoft SQL Server 2005.

How does Xerox Global Services manage millions of office devices for its customers? Their largest application runs on new SQL Server™ 2005 64-bit running on Windows Server™ 2003, which provides 99.999% uptime.* See how at microsoft.com/bigdata

Corporate Users See Potential In Cisco's Radio Technology

IP-based system goes beyond use for emergencies

BY MATT HAMBLEN
NEW YORK

CISCO SYSTEMS Inc.'s new IP-based radio interoperability technology is geared toward helping emergency response workers talk to one another at disaster scenes. But it could also be used by large businesses as part of efforts to improve productivity, according to some early adopters.

For example, Maher Terminals Inc. has been using the Internet Protocol Interoperability and Collaboration System (IPICS) in production applications at its 450-acre cargo terminal in Port Elizabeth, N.J., since June. After Cisco announced the technology here last month, Steven Rummel, Maher's vice president of IT, said that IPICS is providing connections among about 500 Cisco IP telephones and 700 Sprint Nextel push-to-talk radios, as well as 25 PCs.

The links give Maher's workers new options for communicating with one another, Rummel said. He noted that engineers looking at technical drawings in an office can use IPICS to give instructions to mechanics who are repairing large gantry cranes, instead of having to carry the documents to the site. That helps get cranes back in operation more quickly, reducing downtime costs that he estimated at $30,000 for every 30 minutes one is out of service.

In addition, supervisors can monitor crane and other shipping operations from their offices via remote IP-based cameras. The Cisco technology could also be used as a communications bridge between Maher personnel and U.S. Customs and Border Protection officials, Rummel said.

According to Cisco, IPICS creates a shared communications architecture for landline telephones, cell phones, proprietary radios and other handheld devices, and PCs equipped with softphones.

Schiphol Telematics, which operates some of the IT networks at Schiphol Airport io Amsterdam, began testing the IPICS technology in September to evaluate its potential value for emergency response as well as daily operations.

Henry van der Geest, financial director at Schiphol Telematics, said airport officials see numerous needs for business-to-business radio interoperability, especially wheo planes are being serviced by food services or cleaning contractors. IPICS could support communications between the crews in planes and workers in the airport's terminals or control tower, he said.

There are "dozens" of independeot networks at the airport that also could benefit from the interoperability promised by IPICS, according to van der Geest. But, he added, officials are still in the midst of laying the groundwork for deploying the technology. "We have to create the right business model to use it effectively," van der Geest said.

Gordon Bruce, CIO for the city of Honolulu, said a two-week test of IPICS in early October showed that it would be valuable not only in improving communication between the city's police and fire personnel during emergencies, but also for day-to-day operations involving agencies at all levels of government on the Hawaiian island of Oahu.

One unknown is how much it will cost to buy IPICS, which includes server hardware and software components and a push-to-talk client application. Charles Giancarlo, Cisco's chief development officer, said pricing won't he announced until next year. ▸

Banks Urged to Automate Online Transaction Controls

Authentication guidelines aren't the only answer

BY JAIKUMAR VIJAYAN

As banks move to install stronger end-user authentication technologies to meet new federal guidelines for online security, they shouldn't overlook the importance of providing transaction-level controls as well, according to some IT managers and analysts.

Stronger authentication isn't the only answer when it comes to mitigating online banking risks, said Alenka Grealish, an analyst at Celent LLC, a consulting firm in Boston that focuses on financial services IT issues. "I think it's important to not only pay attention to how we secure the door to the bank but what should he done when or if a criminal finds his way through that door," Grealish said.

Existing security threats, such as Trojans and e-mail phishing attacks, already can bypass some of the strongest authentication technologies available, noted Jonathan Penn, an analyst at Forrester Research Inc. Therefore, what's also needed is more transaction and account monitoring, as well as behavior modeling, to help detect and prevent fraud, Penn said.

Automated tools are available to help users do the monitoring and modeling work, but their use remains relatively low in the retail banking industry, he added.

The advice offered by Grealish and Penn is appropriate, given the level of online security threats that banks face, said Donna Pfeil, vice president of information security and compliance at ShoreBank Corp. in Chicago.

"It really is all about thinking through the process and making sure you understand what the best solutions are for mitigating the risk of having your customer information compromised," she said.

According to Pfeil, ShoreBank had been evaluating new authentication technologies even before the Federal Financial Institutions Examination Council on Oct. 12 called on banks to add a second form of authentication to username and password processes.

She said that bank staffers are now trying to understand where security threats exist by monitoring online transactions and examining how ShoreBank's Internet banking services are being used. The bank's goal is to implement an autheotication process that is tied to the level of risk associated with individual transactions, Pfeil added.

Regulations such as the USA Patriot Act already require banks to do a certain level of account and transaction monitoring, which can he useful in detecting fraud, said Tom Robertson, senior vice president of IT at Charter Bank io Bellevue, Wash. To help mitigate security risks, measures such as consumer education and awareness campaigns also are crucial, he noted.

> **"It really is all about thinking through the process and making sure you understand what the best solutions are for mitigating the risk of having your customer information compromised.**
>
> DONNA PFEIL, VICE PRESIDENT, SHOREBANK CORP.

"In the credit card world, every single transaction is scored for the chance of it being fraudulent," said Naftali Bennet, CEO of Cyota Inc., a New York-based veodor of tools that analyze the potential risks of online banking transactions. A similar approach is needed in the retail banking sector, Bennet said.

Other vendors also are offering fraud management tools to banks. For example, Fair Isaac Corp. in Minneapolis has started marketing a banking version of its Falcon technology, which monitors transactions and account activity and looks for behavior that deviates from the norm.

In addition, New York-based Actimize Inc. offers a suite of fraud-prevention products for online security issues such as account takeovers, identity theft and check fraud. ▸

Eric Lai contributed to this story.

SAS SOFTWARE FOR
BUSINESS INTELLIGENCE AND BEYOND

The Power to Know why other BI vendors have arrived too at

WANT PROOF?

Check out our Web site to learn why analysts and customers agree:

SAS Business Intelligence is fast, simple, consistent and accurate.

While other vendors are playing catch-up — by just now introducing their BI approaches — SAS continues to lead the way in the business intelligence market. When you consider investing in or upgrading your current BI software, talk to SAS about our proven successes.

- Unmatched Enterprise Intelligence Platform
- Nearly 30 years of BI experience
- Undisputed leader in business analytics
- More than 4 million users at over 40,000 locations worldwide
- At work in 94% of FORTUNE Global 500® companies

go Beyond BI at **www.sas.com/sasBI** • Analyst case study

SAS 9

sas. | THE POWER TO KNOW.

DON TENNANT

Daring to Dream

ALMOST exactly a year ago in this space, I thanked IT professionals for what they did for my dad, who had died a few days earlier of ALS. I thanked them for the perseverance they showed in creating and advancing the systems that have improved all our lives, and especially for those he so loved using himself, until, as I recounted then, he could no longer lift his arms to his keyboard and his fingers could no longer press the keys.

Don Tennant is editor in chief of Computerworld. You can contact him at don_tennant@computerworld.com.

My dad was very proud of the fact that I speak Chinese, and he once asked me what the Chinese word for "computer" is. I told him it's *dian nao*, which, literally translated, means "electronic brain." He got a kick out of that. "Well, that makes sense," he said. "That's probably what we should be calling them."

That exchange came to mind earlier this month when I attended the opening of the McGovern Institute for Brain Research at MIT. The institute was founded by Patrick J. McGovern, founder and chairman of International Data Group, *Computerworld*'s parent company; and by his wife, Lore Harp McGovern. I was intrigued by Pat McGovern's lifelong journey, one that had taken him from wanting to help people understand electronic brains to wanting to help them understand the human brain itself.

McGovern talked about that journey in his eloquent remarks at the opening ceremony. He recalled some advice his mom had given him when he was a boy. She told him that whatever he did with his life, he had to be proud of doing it, he had to be around people he enjoyed doing it with, and he had to have a dream.

McGovern's dream was to improve the quality of people's lives through improved communication. It's not surprising, then, that for four decades he has devoted himself to technology publishing — an endeavor that, not coincidentally, melds the communications-oriented mission of publishing with the development of the tools that have advanced communication more in the past 50 years than in the entirety of previous recorded history.

Referring to his travels around the world in the course of making IDG the global media institution it is, McGovern said he was struck by how alike the people in every country he's visited truly are. He noted that they share the same fundamental aspirations and concerns, regardless of which side of any particular political boundary they happen to reside on. At the same time, he found that despite their similarities, the people in different countries appear to have an inherent distrust of one another. How, McGovern wonders, do we account for that communication breakdown?

Many would argue that the answer has a spiritual element. But if we can accept that there is a link between the spiritual and the physical, how can we develop a deeper understanding of the physical dimension of thought and emotion? Simply put, why does the brain work the way it does?

The McGovern Institute for Brain Research is the McGoverns' dream to find the answers. Suppose we could learn enough about the brain to enable us to understand and treat the neurological disorders, both mental and physical, that afflict so many millions of people all over the world.

As I ponder that supposition, I think about the neurological disorder that caused my dad so much suffering, and that ultimately took his life. And I think how glad I am that people like Pat McGovern dare to dream.

Don Tennant

MICHAEL H. HUGOS

The Music We Make With IT

LIVING IN Chicago, I am influenced by two native musical traditions: rhythm and blues, and jazz.

Rhythm and blues is the profoundly simple yet powerful music that blends a steady bass rhythm with a flourish of higher notes, usually delivered by guitar and a singer's voice. The steady bass rhythm connects me to the music, while the flourish of higher notes leads me on a voyage to compelling places within that music. Wow!

In jazz, musicians explore a musical space freely, blending their individual contributions into the piece of music they are creating together. Yes!

I see something of each of these two traditions in running an IT operation, whether it is a single project or a whole department. The steady, reliable bass beat of rhythm and blues is analogous to what they call "dial tone" in telecom, that steady hum of behind-the-scenes activity that keeps users connected to systems. The bass beat of IT comes from folks who follow a highly disciplined process to keep systems hardware, software and communications links up and running 24/7.

MICHAEL H. HUGOS is CIO at Network Services Co., a distribution cooperative in Mount Prospect, Ill., that sells food-service and janitorial supplies. He is the author of *Building the Real-Time Enterprise: An Executive Briefing* (John Wiley & Sons Inc., 2004). He can be reached at mhugos@[illegible].com.

As with rhythm and blues, it's the flourishes that are memorable. In the case of IT, the flourishes are the business applications, which deliver the results people desire from IT. Rhythm and blues doesn't really work if the bass line falters or the flourishes don't soar and thrill the listener. In IT, we need to keep the pulse of that bass line while finding ways to focus most of our energy on creating business applications that people really like. After all, it's only through enthusiastic and effective use of the right bundle of business applications that

DON TENNANT

Daring to Dream

ALMOST exactly a year ago in this space, I thanked IT professionals for what they did for my dad, who had died a few days earlier of ALS. I thanked them for the perseverance they showed in creating and advancing the systems that have improved all our lives, and especially for those he so loved using himself, until, as I recounted then, he could no longer lift his arms to his keyboard and his fingers could no longer press the keys.

My dad was very proud of the fact that I speak Chinese, and he once asked me what the Chinese word for "computer" is. I told him it's *dian nao*, which, literally translated, means "electronic brain." He got a kick out of that. "Well, that makes sense," he said. "That's probably what we should be calling them."

That exchange came to mind earlier this month when I attended the opening of the McGovern Institute for Brain Research at MIT. The institute was founded by Patrick J. McGovern, founder and chairman of International Data Group, *Computerworld*'s parent company; and by his wife, Lore Harp McGovern. I was intrigued by Pat McGovern's lifelong journey, one that had taken him from wanting to help people understand electronic brains to wanting to help them understand the human brain itself.

McGovern talked about that journey in his eloquent remarks at the opening ceremony. He recalled some advice his mom had given him when he was a boy. She told him that whatever he did with his life, he had to be proud of doing it, he had to be around people he enjoyed doing it with, and he had to have a dream.

McGovern's dream was to improve the quality of people's lives through improved communication. It's not surprising, then, that for four decades he has devoted himself to technology publishing — an endeavor that, not coincidentally, melds the communications-oriented mission of publishing with the development of the tools that have advanced communication more in the past 50 years than in the entirety of previous recorded history.

Referring to his travels around the world in the course of making IDG the global media institution it is, McGovern said he was struck by how alike the people in every country he's visited truly are. He noted that they share the same fundamental aspirations and concerns, regardless of which side of any particular political boundary they happen to reside on. At the same time, he found that despite their similarities, the people in different countries appear to have an inherent distrust of one another. How, McGovern wonders, do we account for that communication breakdown?

Many would argue that the answer has a spiritual element. But if we can accept that there is a link between the spiritual and the physical, how can we develop a deeper understanding of the physical dimension of thought and emotion? Simply put, why does the brain work the way it does?

The McGovern Institute for Brain Research is the McGoverns' dream to find the answers. Suppose we could learn enough about the brain to enable us to understand and treat the neurological disorders, both mental and physical, that afflict so many millions of people all over the world.

As I ponder that supposition, I think about the neurological disorder that caused my dad so much suffering, and that ultimately took his life. And I think how glad I am that people like Pat McGovern dare to dream.

Don Tennant

MICHAEL H. HUGOS

The Music We Make With IT

LIVING IN Chicago, I am influenced by two native musical traditions: rhythm and blues, and jazz.

Rhythm and blues is the profoundly simple yet powerful music that blends a steady bass rhythm with a flourish of higher notes, usually delivered by guitar and a singer's voice. The steady bass rhythm connects me to the music, while the flourish of higher notes leads me on a voyage to compelling places within that music. Wow!

In jazz, musicians explore a musical space freely, blending their individual contributions into the piece of music they are creating together. Yes!

I see something of each of these two traditions in running an IT operation, whether it is a single project or a whole department. The steady, reliable bass beat of rhythm and blues is analogous to what they call "dial tone" in telecom, that steady hum of behind-the-scenes activity that keeps users connected to systems. The bass beat of IT comes from folks who follow a highly disciplined process to keep systems hardware, software and communications links up and running 24/7.

As with rhythm and blues, it's the flourishes that are memorable. In the case of IT, the flourishes are the business applications, which deliver the results people desire from IT. Rhythm and blues doesn't really work if the bass line falters or the flourishes don't soar and thrill the listener. In IT, we need to keep the pulse of that bass line while finding ways to focus most of our energy on creating business applications that people really like. After all, it's only through enthusiastic and effective use of the right bundle of business applications that

7th Annual

COMPUTERWORLD

PREMIER 100

IT LEADERS CONFERENCE

March 5-7, 2006
JW Marriott
Desert Springs Resort
Palm Desert, California

Mastering IT Agility, Accelerating Business Innovation

The Nation's Leading IT Executive Conference for:

- CIOs, CTOs and CSOs
- Vice Presidents of IT
- Enterprise IT Directors

Get advice from award-winning CIOs and industry experts on:

- **EXECUTING** the global IT agenda
- **SUPERCHARGING** infrastructure to create new products and services
- **ACHIEVING** security and disaster recovery excellence
- **READYING** next-generation IT-savvy business leaders
- **ADVANCING** IT governance and risk/reward balance

Special Visionary Addresses from:

RICHARD CLARKE
Former adviser on security to four presidents, former National Security Council cyberterrorism chief, author of the book *Against All Enemies: Inside America's War on Terror* and *The Scorpion's Gate*

RANDY MOTT
Executive Vice President and CIO, Hewlett-Packard Company, former CIO, Dell, former CIO, Wal-Mart Stores

Featured speakers include:

RIZWAN AHMED
CIO, Office of Group Benefits & Department of Natural Resources, State of Louisiana

JOHN FISHER
Senior Vice President and CIO SmithBucklin Corp.

WENDELL FOX
Senior Vice President, North American Information Resources Field Services, Marriott Corp.

TONY FULLER
Vice President of IT, CIO, Rent-A-Center Inc.

DON GIBSON
Managing Director, IT, Fedex Services

FARZAD GOLSHANI
Vice President, IT Infrastructure, Transamerica

SCOTT GRIFFIN
Vice President and Boeing Chief Information Officer, The Boeing Corp.

MITCHELL HANSEN
Vice President, Enterprise Systems & Services, Quest Diagnostics, Inc.

MIKE HUGOS
CIO, Network Services Company

GREG MEFFERT
Chief Technology Officer/CIO, City of New Orleans

DIANAH NEFF
CIO, City of Philadelphia

RICK OMARTIAN
IT CFO & Chief of Staff, Guardian Life Insurance Co.

JAN RIDEOUT
CIO, Northrop Grumman Ship Systems

All IT End User Attendees will receive a complimentary autographed copy of Richard Clarke's new book, *The Scorpion's Gate*

See solutions from companies including:

(as of 11/8/05)

CONFERENCE UNDERWRITER

AVAYA

PLATINUM SPONSORS

APC · bmc · Cognizant Technology Solutions · COMPUWARE · FUJITSU · INTERSYSTEMS · PRICEWATERHOUSECOOPERS · PeopleSoft · SAS · SupportSoft · SYBASE · symantec. · Teradata · VeriSign

PRE-CONFERENCE GOLF OUTING SPONSOR: FUJITSU

For sponsorship opportunities, call Leo Leger at 508-820-8212 or John Amato at 508-820-8278

To register now or for more information visit www.premier100.com

Owned and Produced by
COMPUTERWORLD

March 5-7, 2006 • JW Marriott Desert Springs Resort • Palm Desert, California

"... the Premier 100 Conference is a world-class event ... I manage 1,000 IT professionals and an IT budget of $300 million worldwide. I apply what I learn here to my job ..."

John C. Moon
Corporate VP & CIO
Baxter International Inc.

"... Premier 100 gives a unique perspective that will help me formulate future IT strategies ..."

Evon Jones
SVP & CIO
The Dial Corporation

"... Computerworld events draw a well informed audience and structure agendas that span all management and technical issues ..."

Dennis Callahan
EVP & CIO
The Guardian Life
Insurance Company of America

7th Annual
COMPUTERWORLD
PREMIER 100
IT LEADERS CONFERENCE

Where IT Executives Exchange Innovative Ideas & Strategies

Crafted by Computerworld's editors, the seventh annual Premier 100 IT Leaders Conference is a unique and compelling departure from the standard technology conference. Rather than focusing on vendors and products, the spotlight is on great ideas, strategic use of best practices and real-world leadership from the IT and business executives who are advancing their organizations through technology.

Conference Chair:

JULIA KING
Executive Editor, Events and National Correspondent, Computerworld

Conference Theme:
Mastering IT Agility, Accelerating Business Innovation

Topic areas include:

- **Executing the Global IT Agenda**
- **Supercharging Infrastructure to Create New Products and Services**
- **Achieving Security and Disaster Recovery Excellence**
- **Readying Next-generation IT-savvy Business Leaders**
- **Advancing IT Governance and Risk/Reward Balance**

Conference At-a-Glance *(subject to change)*

For details, updates, and to register visit **www.premier100.com**

SUNDAY, MARCH 5, 2006

10:00am – 7:30pm Registration Open

Noon – 5:00pm **Pre-conference Golf Outing** *Sponsored by* FUJITSU

7:00pm – 9:00pm **Pre-conference Welcome Reception** *Sponsored by* AVAYA

MONDAY, MARCH 6, 2006

7:00am – 6:30pm Registration Open

8:00am – 5:25pm Conference Sessions and Events Including:

Opening Visionary Address
Randy Mott, Executive Vice President and CIO, Hewlett-Packard Company, former CIO, Dell, former CIO, Wal-Mart Stores

Concurrent IT End-User Case Studies

Luncheon Served In the Networking Lounge

Panel Discussion: Back from the Brink – Lessons Learned on the Front Lines of Disaster
Moderator: Julia King, Executive Editor, Events and National Correspondent, Computerworld

Panelists:

- Tony Fuller, Vice President of IT, CIO, Rent-A-Center Inc.
- Gregg Meffert, Chief Technology Officer/CIO, City of New Orleans
- Rick Omartian, IT CFO and Chief of Staff, Guardian Life Insurance Co
- Jan Rideout, CIO, Northrop Grumman Ship Systems

continued

For more information and to register, visit www.premier100.com or call 1-800-883-9090

Conference At-a-Glance *(continued)*

Penel Discussion: Back from the Brink –
Lessons Leerned on the Front Lines of Disaster *(session details)*

Recently, Hurricane Katrina devastated the Gulf Coast. Less than a month later Hurricane Rita hit, then Hurricane Wilma. Flood waters ravaged data centers employees went missing, entire communities were evacuated. Panelists offer a candid view of where and how their IT and business continuity plans worked, what they didn't see coming and how they plan to prepare and respond the next time disaster strikes.

Closing Visionery Address
Richard Clarke, Former adviser on security to four presidents, former National Security Council cyberterrorism chief, author of the book *Against All Enemies: Inside America's War on Terror* and *The Scorpion's Gate*

5:30pm – 8:00pm **Dinner Served in the Networking Lounge**

TUESDAY, MARCH 7, 2006

7:00am – 8:00am **Breakfest Served in the Networking Lounge**

7:30am – 5:00pm Registration Open

8:10am – 5:30pm Conference Sessions and Events Including:

Opening Visionery Address

Penel Discussion: Delivering Business Agility Through IT

Across nearly all industries new product and service breakthroughs depend on IT. By exploiting Web services, software reuse and integration, advanced business intelligence and security technologies, wireless networking and lean and agile methodologies for project delivery IT leaders are enabling their organizations to deliver continuous business innovations to compete on the leading edge.

Concurrent IT End-User Case Studies

Luncheon Served in the Networking Lounge

Penel Discussion: The Leedership Agende – Grooming Next-Generetion IT Telent
Moderator: Thornton A. May, Futurist and Computerworld Columnist

Next-generation IT leaders must be totally in sync with the need to bolster the top line by creating IT-enabled products and services. They must understand that the customer – and information about the customer – is an organization's most important asset. They must be knowledgeable about the criticality of correctly timing technology entrances and exits. They must understand global competition. This panel of Premier100 honorees discusses how and why they have made grooming next-generation IT leaders a top priority on their own leadership agenda.

Closing Visionary Address

7:00pm – 7:30pm **Cocktail Reception**

7:30pm – 9:30pm **Gela Evening, "Best in Cless" Awerds end Honoree Recognition, end Entertainment**

Golf Outing sponsored by

FUJITSU

Pre-Conference Golf Outing

Complimentary for Registered IT Users

The Pre-Conference Golf Outing, taking place at the JW Marriott Desert Springs Resort, is complimentary ($165 value) for registered IT End-Users (other participants, including sponsors and vendors, may play on an "as available" basis and are responsible for all applicable golf outing expenses).

For details, contact Chris Johnson at 1-508-820-8652

JW Merriott Desert Springs Resort
Palm Desert, California

Hotel Reservations and Travel Services

To reserve your accommodations, visit:

www.etcentral.com

If you have questions about accommodations, call:

1-888-254-1597

IT End-User* Conference Registration Application

7th Annual
COMPUTERWORLD
100 PREMIER
IT LEADERS CONFERENCE

March 5-7, 2006
JW Marriott
Desert Springs Resort
Palm Desert, California

Fax this completed application to 1-508-820-8254. Or apply online at: www.premier100.com

Your business card is REQUIRED to process your application

Please affix your business card in the space provided. Incomplete Application will be returned.

Questions? Call 1-800-883-9090

If not indicated on your business card, please provide the following required information:

Corporate Email Address

Corporate Website

Registration questions?
Call 1-800-883-9090
or email p100reg@computerworld.com

Need accommodations?
Reserve them at **www.etcentral.com**

❑ Special services required? (Please attach a written description)
Would you like to receive information about the golf outing on Sunday, March 5th? ❑ Yes ❑ No
Will you need accommodations at the Premier 100 IT Leaders Conference? ❑ Yes ❑ No

All dollar amounts are in U.S. funds, registrations include full access to all sessions the Expo and Networking Lounge, meals and receptions. Transportation and hotel accommodations are your responsibility. Computerworld reserves the right to limit and/or refuse any registration for any reason

	Earlybird Registration (through January 20, 2006)	Full/On-Site Registration (after January 20, 2006)
❑ I am an IT End-User:*	❑ $1,495	❑ $1,795

* IT End-Users are defined as those who are attending Computerworld's Premier 100 IT Leaders Conference with an intent (and an IT spending budget) to potentially buy/lease hardware/software/services, etc. from our conference sponsors and are not themselves an IT vendor. As such account representatives, business development personnel, analysts, consultants and anyone else attending who does not have IT purchasing influence within their organization are excluded from the "IT End-User" designation. Interpretation and enforcement of this policy are at the sole discretion of Computerworld. Questions? Please call 1-800-883-9090

NOTE: If you are not an IT End-User, you may register as a Non-Sponsoring Vendor

❑ I am a Non-Sponsoring Vendor:**	❑ $5,000	❑ $5,000

** Vendors are encouraged to participate in Computerworld's Premier 100 IT Leaders Conference through sponsorship. (Details are available by calling Leo Leger at 508-820-8212 or John Amato at 508-820-8279.) Alternatively vendors (as well as other "non-IT end-user" professionals as defined by Computerworld) may apply for registration at the "non-sponsoring vendor" rate. Determination of what constitutes a "non-sponsoring vendor" registration is at the sole discretion of Computerworld.

Attendee Profile: (This section **must** be completed in order to process your application)

Your business/industry:
- ❑ Aerospace
- ❑ Manufacturing & Process Industries (non-computer related)
- ❑ Finance/Banking/Accounting
- ❑ Insurance/Real Estate/Legal Services
- ❑ Government: Federal (including Military)
- ❑ Government: State or Local
- ❑ Health/Medical/Dental Services
- ❑ Retailer/Wholesaler/Distributor (non-computer related)
- ❑ Transportation/Utilities
- ❑ Communication Carriers (ISP, Telecomm, Data Comm, TV/Cable)
- ❑ Construction/Architecture/Engineering
- ❑ Data Processing Services
- ❑ Education
- ❑ Agriculture/Forestry/Fisheries
- ❑ Mining/Oil/Gas
- ❑ Travel/Hospitality/Recreation/Entertainment
- ❑ Publishing/Broadcast/Advertising/Public Relations/Marketing
- ❑ Research/Development Lab
- ❑ Business Services/Consultant (non-computer related)
- ❑ Mfg. of Computers, Communications, Peripheral Equipment or Software

Your job title/function:

IT MANAGEMENT
- ❑ CIO, CTO, CSO
- ❑ Executive VP, Sr VP
- ❑ Vice President
- ❑ Director
- ❑ Manager/Other IT Manager
- ❑ Supervisor

BUSINESS MANAGEMENT
- ❑ CEO, COO, Chairman, President
- ❑ CFO, Controller, Treasurer
- ❑ Executive VP, Sr VP, VP, General Manager
- ❑ Director, Manager
- ❑ Other Corporate/Business Manager

Number of employees in your entire organization (ALL locations):
- ❑ 20,000 or more
- ❑ 10,000 - 19,999
- ❑ 5,000 - 9,999
- ❑ 1,000 - 4,999
- ❑ 500 - 999
- ❑ 100 - 499
- ❑ 50 - 99
- ❑ Less than 50

What is your organization's annual IT/IS budget for all IT/IS products?:
- ❑ $1 billion or more
- ❑ $500 to $999.9 million
- ❑ $100 to $499.9 million
- ❑ $50 to $99.9 million
- ❑ $10 to $49.9 million
- ❑ $1 to $9.9 million
- ❑ $500,000 to $999,999
- ❑ $250,000 to $499,999
- ❑ $100,000 to $249,999
- ❑ Under $100,000
- ❑ None

What is the estimated annual revenue of your entire organization?:
- ❑ $10 Billion+
- ❑ $1 Billion - $9.9 Billion
- ❑ $500 Million - $999 Million
- ❑ $100 Million - $499 Million
- ❑ Less than $100 Million

The one item that best describes your involvement in the IT purchase process:
- ❑ Author or approve purchase
- ❑ Evaluate/recommend products, brands, vendors
- ❑ Specify features/technical requirements
- ❑ Set budget for expenditures
- ❑ Determine need to purchase
- ❑ Create IT strategy
- ❑ All of the above
- ❑ None of the above

What is your organization's MOST mission critical development/implementation project this year?
- ❑ Business Intelligence/BPM/Customer Analytics
- ❑ Data Management
- ❑ Mobile & Wireless
- ❑ Enterprise Infrastructure/Data Center Buildout/Consolidation
- ❑ Network Infrastructure/Storage
- ❑ Security
- ❑ Application Development and Integration (Web services/EAI)
- ❑ Compliance

What is your organization's SECOND-MOST mission critical development/implementation project this year?
- ❑ Business Intelligence/BPM/Customer Analytics
- ❑ Data Management
- ❑ Mobile & Wireless
- ❑ Enterprise Infrastructure/Data Center Buildout/Consolidation
- ❑ Network Infrastructure/Storage
- ❑ Security
- ❑ Application Development and Integration (Web services/EAI)
- ❑ Compliance

Would you like to receive a complimentary subscription to Computerworld? (Personal identifier required by our circulation auditor)
- ❑ I already subscribe
- ❑ Yes

Please provide month of birth as a personal identifier

Signature (required) Date

- ❑ No

Payment Method

❑ Check (checks must be received by February 20, 2006 payable to Computerworld)
Mail to Computerworld Attn: Josh Ryan, One Speen Street, Framingham, MA 01701

❑ American Express ❑ VISA ❑ MasterCard
Account Number:

Expiration Date: _____

Card Holder Name:

Signature of Card Holder:

Cancellation Policy (All of the below options require written notification.)
In the event of cancellation, the registrant has three options:

1) He or she may substitute another qualified attendee for this conference.
2) He or she may transfer this registration to Computerworld's 2007 Premier 100 IT Leaders conference.
3) The registration fee will be refunded, less a $250 service charge, if written notice is received by February 20, 2006.

Please send cancellation requests via email to p100reg@computerworld.com

Computerworld reserves the right to limit and/or refuse registration for any reason.

companies will reach the destinations they seek.

Outsourcing much of the activity involved in creating the bass beat is a good idea because there's such a large degree of commonality in creating that beat from one company to the next. Companies are best served by focusing on developing in-house talent that really understands its unique needs and can deliver the appropriate bundle of business applications to fit the business situation as it evolves.

Some companies try to outsource the flourishes of higher notes, too. They choose their favorite flourishes from among a limited selection (the top ERP packages, the top CRM packages, the top supply chain packages) and leave it at that. But they wind up living in a Top 40 pop world, sounding like everybody else. I'll take the power of rhythm and blues, where the best musicians always tailor the higher notes (depending on audience and mood) to meet the needs of the moment.

As for jazz, every jazz musician must master a set of techniques and then use those techniques to bring out the strengths of his chosen instrument. First one musician leads and the others follow, then the lead passes to another musician and so on.

Mastery of technique allows the musicians to go in many different directions with a piece of music. This is also what good IT groups in any organization do. Using the IT infrastructure and tools they have available, they support and enable their company to go in different directions as business environments change.

Effective IT operations are composed of people who know how to combine their individual contributions into the unique blend of systems that a company needs in order to prosper. They are blends of people providing outsourced capabilities and in-house talent who follow a process of working together to make powerful music.

WANT OUR OPINION?

More columnists and links to archives of previous columns are on our Web site: **www.computerworld.com/columns**

READERS' LETTERS

Readers Take a Closer Look at the Gender Gap in IT Salaries

DON TENNANT'S editorial titled "Wage Gap Flap" [Oct. 31] points to an important topic that should concern us all – equity in pay. Nonetheless, I consider this topic to be outside the scope of a technology-related publication like *Computerworld*.

If the publication is seriously going to get into this minefield of a topic, it had better start recognizing its complexity rather than dealing with it at a superficial level. For example, there are statistically demonstrated reasons why men get paid more on the average than women. These include putting in longer work hours, having more years of experience in a certain specialty, being more willing to move to a new location when an employer requests it, traveling for business more frequently and taking jobs with a greater proportion of commission to salary.

There are many other factors, and they are well documented in the excellent book *Why Men Earn More: The Startling Truth Behind the Pay Gap – And What Women Can Do About It*, by Warren Farrell.

All other factors being the same, of course women should earn the same amount as men, but the truth is, all other factors are not the same. Don't take my word for it; read the book.

Charles Crosson Wood
Information security consultant, InfoSecurity Infrastructure Inc., Sausalito, Calif.

SUCCESS IN IT is based on what you know. It's a reflection of what's on your résumé. After three years, your technology knowledge is useless.

If you take time off to have a baby, you aren't likely to get experience on configuring the latest and greatest routers unless you have lots of money to buy equipment. You will lose your certifications, which may not get you a pay raise but may get you the job. And when you decide to work again, your salary starts at whatever you can get an offer for.

If you won't move to improve your career because your family wants to stay in a particular city, then you won't get the pay increase that goes with the move, which determines your future pay.

I have moved three times in my career. Each time it was for better pay or experience. If I had stayed in the same city, I would probably be making 10% to 20% less than I am making now. You *have* to move where the jobs are, especially in a tight job market like today.

Ken Hollis
Tulsa, Okla.

I AGREE WHOLEHEARTEDLY that women should earn the same as men for doing the same work. However, this is already the case. According to the National Center for Policy Analysis, for full-time work, women already earn about the same as men for the same job history – the "wage gap" is the result of differences in field, time taken off, etc. And for part-time work, women earn significantly more than men.

Richard Sol
Los Angeles

I DO NOT UNDERSTAND the argument that women can be paid less because they take time off to raise families.

I have read a number of articles stating that people change jobs frequently, and so most employees have very little time with any particular company. Thus, all employees are hired based on what they can do for a company in the present, not what they did for some other company in the past. This makes the tenure issue a relatively moot point when it comes to deciding compensation.

Michael Frank
Los Angeles

AT A RECENT meeting with my staff, as we were gathered around the table in what is known as the IT Kitchen, I asked my 19 employees to close their eyes. I then asked them to tell me who outnumbered who on our team, men or women. As they were doing that mental math, I asked, How many blacks? Asians? Hispanics? Old white guys?

No one knew the correct answers to these questions. And that was the point – no one needed to know, because gender, race, ethnicity and other things that separate people should be a nonissue. They become a nonissue when you succeed in not discriminating against people.

If you are doing your job as the IT hiring manager – hiring, promoting and compensating based on objective criteria, and ignoring your natural prejudices – then chances are you'll end up with a varied group of people who are equitably and fairly paid.

Justice starts at home. My 19 IT workers and how they are compensated will not make a dent in the national averages or the surveys, but we know we've done our part.

Paul Dearing
CIO, PaperPak Products Inc. San Dimas, Calif., pdearing@paperpak.com

I'D BE interested to see what happens to the gender wage gap when it is correlated to time in the career. Comparable worth is a great theory, and merit-based pay is a wonderfully egalitarian objective, but let's face it – tenure is usually more important to determine salaries, and women tend to drop out of the workforce more often than men, leaving them, on average, with shorter careers. Sure, more and more women are re-entering their careers later – after the kids have started school, for example – but the net effect is that the average years of career work (not to demean the work required to raise kids) for women is less than men. Perhaps it is around 90%?

Brian E. Hoffman
Business analyst, New York, bhoff@acm.org

IF YOU had taken that survey 20 years ago, the gap would have been a lot wider. The business world continues to change its view as time passes. I believe there is hope for us women, and as another generation of managers and executives retires, this gap will become even smaller.

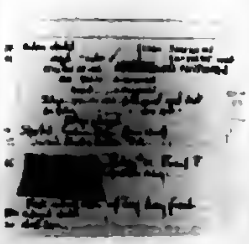
Karina Huebel
King of Prussia, Pa.

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

For more letters on these and other topics, go to **www.computerworld.com/letters**

The Moth That Spawned *Bug* Was No Myth

I WAS VERY surprised to read Fred E. Brandli Jr.'s letter [Oct. 31] asserting that the Mark IV moth is a myth. A little research at the U.S. Navy's official history site sheds a little more light on the truth of the story. It turns out that the moth was on the Mark II computer, not the Mark IV. Perhaps this is the source of Brandli's confusion.



The infamous Mark II moth

You can find a high-resolution photograph of the moth, and the lab book into which it was pasted, at *http://history.navy.mil/photos/pers-us/uspers-h/g-hoppr.htm*.

Simson L. Garfinkel
Center for Research on Computation and Society, Harvard University, Cambridge, Mass.

ThinkPad recommends Windows® XP Professional.

YOU'RE LOOKING AT THE MOST SECURE WIRELESS PC.

AND THE EASIEST WAY TO UNLOCK IT.

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors. ***Pricing:** Prices do not include tax or shipping or recycling fees and are subject to change without notice. Reseller prices may vary. **Warranty:** For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third-party products or services. **Footnotes: (1) Mobile Processors:** Power management reduces processor speed when in battery mode. **(2) Wireless:** based on IEEE 802.11a, 802.11b and 802.11g respectively. An adapter with 11a/b, 11b/g or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects. **(3) Included software:** may differ from its retail version (if available), and may not include user manuals or all program functionality. License agreements may apply. **(4) Memory:** For PCs without a separate video card, memory supports both system and video. Accessible system memory is up to 64MB less than the amount stated, depending on video mode. **(5) Hard drive:** GB = billion bytes. Accessible capacity is less; up to 4GB is service partition. **(7) Trimension:** may vary at certain points on the system. **(8) Travel Weight:** includes battery and optional travel bezel instead of standard optical drive in

MOBILE TECHNOLOGY

THE MOST SECURE WIRELESS PC. ONLY ON A THINKPAD.

Put security at your fingertips when you're on the road. Literally. These ThinkPad® notebooks feature Intel® Centrino™ Mobile Technology, so you can access your data wirelessly anytime. And with our Integrated Fingerprint Reader (select models), it all happens with one finger and one password. These innovations, combined with our security chip and software, provide a level of security that no one else offers as a standard feature. Giving you the most secure wireless PC available.

ThinkPad R50e

DISTINCTIVE INNOVATIONS

ThinkVantage Rescue and Recovery – one-button recovery and restore solution

SYSTEM FEATURES

Intel® Centrino™ Mobile Technology
Intel® Pentium® M Processor 725 (1.60GHz)
Intel® PRO/Wireless 2200BG (802.11b/g)

Microsoft® Windows® XP Home Edition[3]

15" XGA TFT Display (1024x768)

256MB DDR SDRAM[4], 40GB Hard Drive[5]

$899* (P/N 1842QFU)

ThinkPad Nylon Carrying Case

$49 (P/N 10K0207)

ThinkPad Women's Executive Red Leather Tote[11]

$134 (P/N 22P8858)

ThinkPad T43 with Integrated Fingerprint Reader

Perfect balance of performance and portability.

DISTINCTIVE INNOVATIONS

ThinkVantage Client Security Solution 6.0[10] – Strong security as a standard feature

SYSTEM FEATURES

Intel® Centrino™ Mobile Technology
Intel® Pentium® M Processor 740 (1.73GHz)
Intel® PRO/Wireless 2200BG (802.11b/g)

Microsoft® Windows® XP Professional

14" XGA TFT Display (1024x768)

512MB DDR2 SDRAM, 60GB Hard Drive

Ultrabay Slim CD-RW/DVD ROM Combo

Only 1" thin[7] and 4.7-lb travel weight[6]

1-yr limited warranty[9]

THINK EXPRESS MODEL

$1499 (P/N 1875DLU)

With the Think Express Program, ThinkPad notebooks are preconfigured with your business, and your budget, in mind.

To shop or locate your local reseller

Call 1 866-426-0009

Go to lenovo.com/security/m583

ThinkPad.

ThinkPad is a product of Lenovo.

Ultrabay bay, if applicable; weight may vary due to vendor components, manufacturing process and options. (10) Internet access required, not included. (10) Client Security Solution: preloaded on selected models, otherwise available by software download. (11) Limited warranty. Support unrelated to a warranty event may be subject to additional charges. For a list of onsite replaceable parts, contact Lenovo. (13) Certain IBM® and ThinkPad® logo products are not manufactured, warranted or supported by IBM or Lenovo. IBM and Lenovo logos and trademarks used under license. Contact Lenovo for details. Trademarks. The following are trademarks of Lenovo: ThinkPad, ThinkCentre and UltraConnect. IBM and the IBM logo are registered trademarks of IBM and are used under license. Microsoft and Windows are registered trademarks of Microsoft Corporation. Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Other company, product and service names may be trademarks or service marks of other companies. ©2005 Lenovo. All rights reserved.
Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Innovations by InterSystems

Rapid development with robust objects

Lightning speed with a multidimensional engine

Easy database administration

Massive scalability on minimal hardware

Multidimensional Database Enables Rapid Development.

Caché is the first multidimensional database for transaction processing and real-time analytics. Its post-relational technology combines robust objects and robust SQL, thus eliminating object-relational mapping. It delivers massive scalability on minimal hardware, requires little administration, and incorporates a rapid application development environment.

These innovations mean faster time-to-market, lower cost of operations, and higher application performance. We back these claims with this money-back guarantee: ***Buy Caché for new application development, and for up to one year you can return the license for a full refund if you are unhappy for any reason.**** Caché is available for Unix, Linux, Windows, Mac OS X, and OpenVMS – and it's deployed on more than 100,000 systems ranging from two to over 50,000 users. We are InterSystems, a global software company with a track record of innovation for more than 25 years.

InterSystems
CACHÉ

Try an innovative database for free: Download a fully functional, non-expiring copy of Caché, or request it on CD, at **www.InterSystems.com/Cache12A**

* Read about our money-back guarantee at the web page shown above.

© 2005 InterSystems Corporation. All rights reserved. InterSystems Caché is a registered trademark of InterSystems Corporation. 11-05 Cache[illegible]

Detectives

Forrester interviewed 24 companies with $500 million or more in revenue and found that:

- were extremely concerned.
- were very concerned.
- were concerned.
- were somewhat concerned.
- were not concerned.

By Sue Hildreth

AT McCARRON International Airport in Las Vegas, virtually every detail of airport operations is stored in one of 14 Oracle Corp. or Microsoft Corp. database servers. Passenger data, personnel files, flight information, airport security data — all of that plus volumes of other sensitive information are housed in the databases. Any unauthorized change to or theft of that data could have severe consequences for the airport.

So naturally, when Phillip Murray, McCarron's departmental systems administrator, receives a request from airport security to look into a suspicious transaction, he takes it very seriously. Until recently, he might have devoted days, or even weeks or months, to scouring log files and SQL statements to investigate questionable activity on a database. "I'd have to carefully piece together events," he says. "It's a matter of browsing through thousands of transactions."

Today, however, Murray spends a lot less time analyzing log files thanks to a database activity auditing and monitoring tool — SQL Guard from Guardium Inc. in Waltham, Mass. The software tracks database access and transactions, sending alerts when unusual activities are spotted. If Murray needs to analyze an event more closely, SQL Guard provides an audit trail of the relevant commands and transactions.

"It's been an immense timesaver," says Murray.

While much of today's application-level security is automated with third-party tools, the databases behind these applications are often not so secure. The assumption is that attacks will occur from outside and be caught by the firewall or the log-in and authorization process of the application. Databases, it is presumed, are too far into the back office to be threatened by a direct attack.

"Traditionally, databases are deep in the organization, so it's hard for somebody to directly nail the database server," says Rich Mogull, research vice president at Gartner Inc. "But more organizations are now concerned about their own systems administrators and other employees, not just external attackers, and that's where these tools are the most valuable."

Concern about data security has been heightened by media reports of thefts of consumer data, as well as financial fraud by employees. Government regulations, such as the Sarbanes-Oxley Act, have also emphasized the need to closely audit access to sensitive

Continued on page 32

[illegible] has

expansion built in

intel

Continued from page 29

data. And, of course, for organizations that serve the public — like McCarron Airport — the terrorist attacks on Sept. 11, 2001, significantly heightened security fears.

"Since 9-11, we had to start looking at our vulnerabilities. Despite the fact that we do rigorous background checks, there's a possibility that someone might come in and gather data that would make the airport easier to attack," says Murray.

But for McCarron, as with most organizations, there's a lot of data to protect. With so much information at risk and too few human resources available to police it all, the demand for automated security products such as database activity monitoring and auditing tools has been on the rise.

Beyond Built-in Database Security

Within the database itself, there are several security features that can help protect data, including user access controls, removal of unnecessary services and accounts that could be exploited, and locking out users who fail several log-in attempts.

Databases also come with their own logging and alerting capabilities. However, these are usually highly manual utilities requiring a lot of time and effort to employ.

For instance, a database administrator can set triggers on certain fields in a database that will send an alert if altered, but setting multiple triggers for every field or event takes time, and too many triggers can degrade the performance of the database.

Databases also have logs that can record failed log-ons and other activities. But these require a human to pore over SQL statements. "Every transaction, good and bad, you have to wade through to find what you're looking for," says Murray. "The purpose of these log tools isn't to help investigate an event but to restore you to some point in time."

This is where an automated tool can prove useful. Third-party database activity monitoring tools work by developing a profile of normal activity that companies can use to spot unusual and suspicious database transactions. The monitoring tools then either send out an alert to a human operator or automatically block the transaction. Likewise, when auditing an event after it has occurred, the tools will filter out normal transactions in the log and consolidate suspicious ones.

Network vs. Agent-based Monitors

Database monitoring tools typically work in one of three ways. Some sit on the network and sniff the SQL stream. Others may connect to a specific port through which the data traffic flows. Or they may be off-line tools that read the databases' log files. All three approaches have their merits, according to proponents.

Those that sniff the SQL stream don't affect the performance of the database server and can be more easily deployed for multiple types of databases. On the other hand, those that read database log files don't slow network performance and are apt to catch more types of suspicious activities, because not all database access occurs over the network, such as when a database administrator is working within the data center.

Also, encrypted traffic or a heavy volume of traffic can be a problem for some products. And each of these tools will initially create a flood of false positive alerts as it learns traffic patterns, which will create an extra burden for whomever is tasked with monitoring alerts and tweaking the auditing tool.

On the positive side, these products typically provide four key functions:

1 [illegible]

The software profiles everything from the type of data normally accessed by users and the number of records typically pulled for specific queries to the log-on times typical for a user. So if an authorized user, who never works weekends, logs in on Saturday night and downloads 1,000 records, the software sends a red flag. It will also keep an eye on metadata changes, alterations to user privileges and abnormal transactions.

2 Send an alert in response to suspicious activity

Once the software has profiled the normal activity of the database and the IT staff has added any of its own access rules, the tool can identify abnormal activity. Typically, alerts are sent via e-mail or to a console for action by the administrator.

3 Automate the auditing process

While auditing won't prevent theft or intrusion, it's critical to tracing an event. Auditing tools can speed the process considerably and can provide clear reports and audit trails in case of an investigation.

This feature isn't available with every product, nor is it advisable in many cases, say experts. "I wouldn't advise doing it unless you have a very strong understanding of how you use your database," says Pete Lindstrom, research director at security analysis firm Spire Security LLC. "The problem is often unknown applications like weird third-party report writers and automated log-ins and heartbeat-monitoring products. If you prevent database activity without understanding it, you'll break the infrastructure."

Nevertheless, he says, once the software has run for a while and profiled the traffic, it's possible to block some obviously bad activities.

Who Needs Data Auditing?

As the 2004 debacle at ChoicePoint Inc. illustrates, all financial and credit-records companies can use data activity profiling and monitoring tools. ChoicePoint, an aggregator of consumer data, was found to have allowed thieves to purchase and download data on as many as 400,000 consumers. The company opted to stop selling consumer data to most businesses after that. But it's not just the ChoicePoints of the business community that can benefit from better protection. Most midsize and large organizations are at risk for theft or improper use of data, notes Gartner's Mogull.

"Everybody's got credit card numbers or Social Security numbers," says Mogull. "Thanks to new regulations and a lot of negative public exposures, CEOs and CFOs are saying, 'I don't want to end up on the front page of *The Wall Street Journal*. We need to take a look at what's going on with the database.'"

The CEI Group Inc., a provider of auto accident and claims management services, implemented Lumigent Technologies Inc.'s AuditDB tool two years ago. With volumes of personal information on more than 600,000 consumers, CEI Group thought it prudent to add another layer of defense around its database. The Feasterville Trevose, Pa.-based company was surprised to find that having a data auditing tool is a major selling point for new customers.

"We can show prospects that we have a detailed audit trail of all changes made to the database and every query against the database," says Andre Alicea, manager of database administration at CEI. "That says a lot about our ability to handle security and privacy concerns."

Another attractive feature, says Alicea, is that the tool doesn't require much extra effort by administrators. "Once it's set up, it just runs on its own. If there's a problem, it sends us an e-mail."

Government regulators and auditors are also helping to promote the adoption of database auditing. For Southwest Corporate Federal Credit Union, the second-largest corporate credit union in the U.S., the main motivation behind implementing IPLocks Inc.'s Infurmation Risk Management Platform was the advice of an auditor to improve database security.

Dallas-based Southwest serves more than 1,200 member credit unions, which in turn cater to individual customers. Just about a year ago, an external auditor told both the company and a competitur that they must prove their data is secured and monitored against theft.

Continued on page 37

Deciphering C2 Security

Many leading database products come with an option called Class C2 (Controlled Access Protection) security. Developed by the U.S. Department of Defense and outlined in the DOD's publication *Trusted Computer System Evaluation Criteria* (also known as the Orange Book), C2 is one of several levels of security policies, ranging from D for minimal protection to A for the highest protection. C2 is the most common high-security certification for commercial databases and operating systems. When the C2 security option is turned on, it will log and audit all security events, protect data objects on a per-authorized-user basis, document security testing and require a number of identification and authorization procedures for users. It places your database in a locked-down mode aimed at parceling out access on a need-to-know basis. However, C2 isn't equivalent to database monitoring and auditing tools, which monitor and alert on specific activities defined by an organization but don't necessarily block or limit those transactions.

– SUE HILDRETH

Continued from page 29

data. And, of course, for organizations that serve the public — like McCarron Airport — the terrorist attacks of Sept. 11, 2001, significantly heightened security fears.

"Since 9/11, we had to start looking at our vulnerabilities. Despite the fact that we do rigorous background checks, there's a possibility that someone might come in and gather data that would make the airport easier to attack," says Murray.

But for McCarron, as with most organizations, there's a lot of data to protect. With so much information at risk and too few human resources available to police it all, the demand for automated security products such as database activity monitoring and auditing tools has been on the rise.

Beyond Built-in Database Security

Within the database itself, there are several security features that can help protect data, including user access controls, removal of unnecessary services and accounts that could be exploited, and locking out users who fail several log-in attempts.

Databases also come with their own logging and alerting capabilities. However, these are usually highly manual utilities requiring a lot of time and effort to employ.

For instance, a database administrator can set triggers on certain fields in a database that will send an alert if altered, but setting multiple triggers for every field or event takes time, and too many triggers can degrade the performance of the database.

Databases also have logs that can record failed log-ons and other activities. But these require a human to pore over SQL statements. "Every transaction, good and bad, you have to wade through to find what you're looking for," says Murray. "The purpose of these log tools isn't to help investigate an event but to restore you to some point in time."

This is where an automated tool can prove useful. Third-party database activity monitoring tools work by developing a profile of normal activity that companies can use to spot unusual and suspicious database transactions. The monitoring tools then either send out an alert to a human operator or automatically block the transaction. Likewise, when auditing an event after it has occurred, the tools will filter out normal transactions in the log and consolidate suspicious ones.

Network vs. Agent-based Monitors

Database monitoring tools typically work in one of three ways. Some sit on the network and sniff the SQL stream. Others may connect to a specific port through which the data traffic flows. Or they may be off-line tools that read the databases' log files. All three approaches have their merits, according to proponents.

Those that sniff the SQL stream don't affect the performance of the database server and can be more easily deployed for multiple types of databases. On the other hand, those that read database log files don't slow network performance and are apt to catch more types of suspicious activities, because not all database access occurs over the network, such as when a database administrator is working within the data center.

Also, encrypted traffic or a heavy volume of traffic can be a problem for some products. And each of these tools will initially create a flood of false positive alerts as it learns traffic patterns, which will create an extra burden for whomever is tasked with monitoring alerts and tweaking the auditing tool.

On the positive side, these products typically provide four key functions:

1. Monitor traffic in real time.

The software profiles everything from the type of data normally accessed by users and the number of records typically pulled for specific queries to the log-on times typical for a user. So if an authorized user, who never works weekends, logs in on Saturday night and downloads 1,000 records, the software sends a red flag. It will also keep an eye on metadata changes, alterations to user privileges and abnormal transactions.

2. Send an alert in response to suspicious activity.

Once the software has profiled the normal activity of the database and the IT staff has added any of its own access rules, the tool can identify abnormal activity. Typically, alerts are sent via e-mail or to a console for action by the administrator.

3. Automate the auditing process.

While auditing won't prevent theft or intrusion, it's critical to tracing an event. Auditing tools can speed the process considerably and can provide clear reports and audit trails in case of an investigation.

4. Block suspicious transactions.

This feature isn't available with every product, nor is it advisable in many cases, say experts. "I wouldn't advise doing it unless you have a very strong understanding of how you use your database," says Pete Lindstrom, research director at security analysis firm Spire Security LLC. "The problem is often unknown applications like weird third-party report writers and automated log-ins and heartbeat-monitoring products. If you prevent database activity without understanding it, you'll break the infrastructure."

Nevertheless, he says, once the software has run for a while and profiled the traffic, it's possible to block some obviously bad activities.

Who Needs Data Auditing?

As the 2004 debacle at ChoicePoint Inc. illustrates, all financial and credit-records companies can use data activity profiling and monitoring tools. ChoicePoint, an aggregator of consumer data, was found to have allowed thieves to purchase and download data on as many as 400,000 consumers. The company opted to stop selling consumer data to most businesses after that. But it's not just the ChoicePoints of the business community that can benefit from better protection. Most midsize and large organizations are at risk for theft or improper use of data, notes Gartner's Mogull.

"Everybody's got credit card numbers or Social Security numbers," says Mogull. "Thanks to new regulations and a lot of negative public exposures, CEOs and CFOs are saying, 'I don't want to end up on the front page of *The Wall Street Journal*. We need to take a look at what's going on with the database.'"

The CEI Group Inc., a provider of auto accident and claims management services, implemented Lumigent Technologies Inc.'s AuditDB tool two years ago. With volumes of personal information on more than 600,000 consumers, CEI Group thought it prudent to add another layer of defense around its database. The Feasterville Trevose, Pa.-based company was surprised to find that having a data auditing tool is a major selling point for new customers.

"We can show prospects that we have a detailed audit trail of all changes made to the database and every query against the database," says Andre Alicea, manager of database administration at CEI. "That says a lot about our ability to handle security and privacy concerns."

Another attractive feature, says Alicea, is that the tool doesn't require much extra effort by administrators. "Once it's set up, it just runs on its own. If there's a problem, it sends us an e-mail."

Government regulators and auditors are also helping to promote the adoption of database auditing. For Southwest Corporate Federal Credit Union, the second-largest corporate credit union in the U.S., the main motivation behind implementing IPLocks Inc.'s Information Risk Management Platform was the advice of an auditor to improve database security.

Dallas-based Southwest serves more than 1,200 member credit unions, which in turn cater to individual customers. Just about a year ago, an external auditor told both the company and a competitor that they must prove their data is secured and monitored against theft.

Continued on page 37

TECHNOLOGY AND POSSIBILITY

November 14, 2005

An Open Letter from
John Swainson, President and CEO,
Computer Associates (CA)

Last night I opened CA World, our company's annual customer forum, with an important announcement from a refocused and re-energized CA. We have developed a new vision for enterprise IT that I'd like to share with you now.

For more than a generation, the enterprise has had abundant reason to believe in the promise of technology to transform business. Each new wave of innovation in IT has given business the opportunity to reach new levels of capability, efficiency and competitiveness. And yet, the addition of each specialized function, and the rapid pace of change, have also created daunting challenges of complexity and security.

Now CA is addressing these challenges with a clear vision for the future. At its heart lies a compelling difference we call Enterprise IT Management (EITM): a new approach to managing technology in which CA software and expertise enable customers to unify and simplify complex IT environments across the enterprise.

We believe that systems, processes and people should work in sync, securely supporting your strategic mission. We believe you can get more out of your current investments in IT. We believe you should have the control you want to fully align existing IT capabilities with your business priorities.

At CA World this week, our vision becomes real. We are launching a new set of software solutions that allow you to begin this journey to EITM, a higher order of IT, whether you work directly with CA or through our partners.

To make it possible, we rely on our most important asset: the more than 15,000 CA employees worldwide whose expertise and commitment help drive performance for over 95 percent of the Global 1000™ companies.

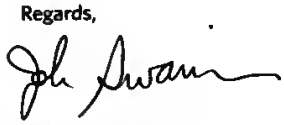
This is an exciting time for CA. Under my senior leadership team, we've implemented new business systems, installed rigorous financial controls and realigned our business units, building a strong foundation for innovation and growth.

Starting today you will hear our new voice in the marketplace, describing how CA technology answers your needs and challenges. You will see that Computer Associates is moving forward simply as CA, the name familiar to our valued customers and partners. We have unified and simplified the CA logo as well, symbolizing our integrated approach.

I am confident that together, CA and our partners can help you unify and simplify your IT environment in a secure way to achieve your business goals.

Turn the page with me to start experiencing the new CA.

Regards,



John Swainson
President and CEO

Computer Associates®

© 2005 Computer Associates International Inc. (CA) All rights reserved

REMEMBER WHEN TECHNOLOGY HAD THE POWER TO INSPIRE YOU?

© 2005 Computer Associates International, Inc. (CA). All rights reserved.

BELIEVE AGAIN.

Once, technology transformed business in a way that made us believe its potential was boundless. But over time, the promise of IT was challenged by sheer complexity. Today there's reason to believe again. CA introduces an approach to managing technology called Enterprise IT Management (EITM). With the range of software and expertise to unify systems, processes and people across the enterprise. Simplify the complex. And enable IT to deliver fully and securely against your business goals. With CA software solutions, you can reach a higher order of IT. At your own pace, on your own path, with your existing technology and partners. To learn more about EITM, and how CA's new solutions can help you unify and simplify your IT environment in a secure way, visit **ca.com/unify**.

ca

EMC²

information ve

Continued from page 32

Southwest did some quick research looking for a product that could monitor and audit its 85 Microsoft SQL Servers and came up with the Information Risk Management Platform. The IPLocks tool, which scans the database log files, enabled Southwest's administrators to keep an eye on the databases without having to constantly do manual queries on specific types of activities or go through unfiltered log files.

The system did require significant tweaking during the first couple of weeks, when it began generating hundreds of alerts, says Akinja Richards, project manager and database administrator at Southwest.

"It took a few weeks to get it all running smoothly," he says, noting that the key to getting a monitoring tool running efficiently is to first understand what all of your applications do. "If I have no idea what the HR people do or what applications they use and reports they run, then I'm going to either protect too much or too little," Richards says.

"You have to understand your applications and your business environment in order to use something like this effectively," he says.

Hildreth is a freelance writer in Waltham, Mass.

Performance Impact
The more triggers, and the more transaction volume, the slower the overall performance of the database.

Storage consumption
Triggers write to local tables, using up storage space on the production database server. This also slows performance.

Complexity
Adding more triggers increases the complexity, thereby increasing the likelihood of bugs and errors in logic.

Maintenance
Triggers are tightly coupled to the structure of a table, so when the table schema changes, the code must be rewritten.

Partial protection
Triggers capture changes to data, such as updates and deletions. But they don't capture changes to schema and object permissions – both critical items to audit.

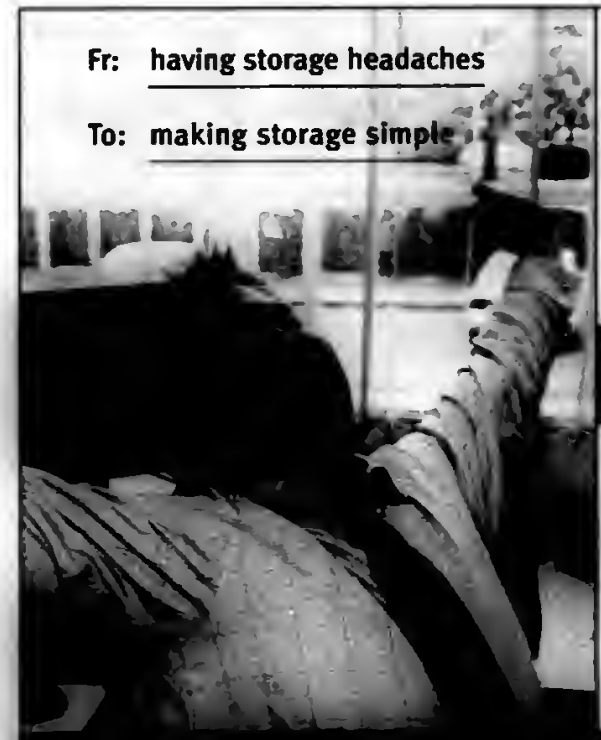
Reliability
Triggers are easily disabled, so that an audit trail wouldn't record fraudulent changes to data.

Slower consolidation
Triggers are written for one database server. But if you're auditing several at a time, it's very difficult to consolidate all of the audit trails into one.

SOURCE: LUMIGENT TECHNOLOGIES INC.

Fr: having storage headaches

To: making storage simple



NOW STORAGE RELIEF COMES IN AFFORDABLE, SCALABLE PACKAGES

EMC²
where information lives®

Whether you need fast backup and complete protection or scalable and easy-to-manage storage consolidation for your midsize enterprise , EMC brings you solutions that are high on results—and simple to use. That's because it's easier than ever to put award-winning software, robust storage, and world-class technical support to work solving your business's critical IT challenges.

EMC CLARiiON iSCSI Solution

Buy for $20,640 — 36 mo $651 Lease*

- EMC® CLARiiON® CX300i IP Storage Platform
- 365GB storage capacity (as priced), scalable up to 19TB
- EMC Navisphere® Workgroup license

EMC CLARiiON Backup Solution

Buy for $22,253 — 36 mo $702 Lease*

- EMC® CLARiiON® CX300 Storage Platform
- 365GB storage capacity (as priced), scalable up to 19TB
- EMC Navisphere® Workgroup license
- EMC Dantz® Retrospect® Multiserver Backup software

EMC CLARiiON SAN Solution

Buy for $24,525 — 36 mo $774 Lease*

- EMC® CLARiiON® CX300 Storage Platform
- 365GB storage capacity (as priced), scalable up to 19TB
- EMC Navisphere® Workgroup license
- 8-port switch

BUSINESS SOLUTIONS FOR MIDSIZE ENTERPRISES

CALL NOW 1-866-796-6369 or visit www.EMC.com/offers.

*Monthly lease amount is based on 36-month Fair Market Value lease, two payments in advance. This offer is valid until December 31, 2005 and is subject to credit approval and final lease documentation. This proposal is based on assumptions regarding the equipment configuration and sale and is subject to change if the configuration, software, services, treasury rates, or sale price changes. Pricing, specifications, availability, and terms of offer may change without notice.

EMC², EMC, CLARiiON, Dantz, Navisphere, Retrospect, and where information lives are registered trademarks of EMC Corporation. All other trademarks used herein are the property of their respective owners. © Copyright 2005 EMC Corporation. All rights reserved. Published in the USA. 08/05

Continued from page 32

Southwest did some quick research looking for a product that could monitor and audit its 85 Microsoft SQL Servers and came up with the Information Risk Management Platform. The IPLocks tool, which scans the database log files, enabled Southwest's administrators to keep an eye on the databases without having to constantly do manual queries on specific types of activities or go through unfiltered log files.

The system did require significant tweaking during the first couple of weeks, when it began generating hundreds of alerts, says Akinja Richards, project manager and database administrator at Southwest.

"It took a few weeks to get it all running smoothly," he says, noting that the key to getting a monitoring tool running efficiently is to first understand what all of your applications do. "If I have no idea what the HR people do or what applications they use and reports they run, then I'm going to either protect too much or too little," Richards says.

"You have to understand your applications and your business environment in order to use something like this effectively," he says.

Hildreth is a freelance writer in Waltham, Mass.

The Trouble With Triggers

Database triggers are often used to alert an administrator to changes to data. However, this built-in database feature has limitations when it comes to auditing databases. Some of the problems with triggers include:

Performance impact
The more triggers, and the more transaction volume, the slower the overall performance of the database

Storage consumption
Triggers write to local tables, using up storage space on the production database server. This also slows performance.

Complexity
Adding more triggers increases the complexity, thereby increasing the likelihood of bugs and errors in logic

Maintenance
Triggers are tightly coupled to the structure of a table, so when the table schema changes, the code must be rewritten.

Partial protection
Triggers capture changes to data, such as updates and deletions. But they don't capture changes to schema and object permissions – both critical items to audit

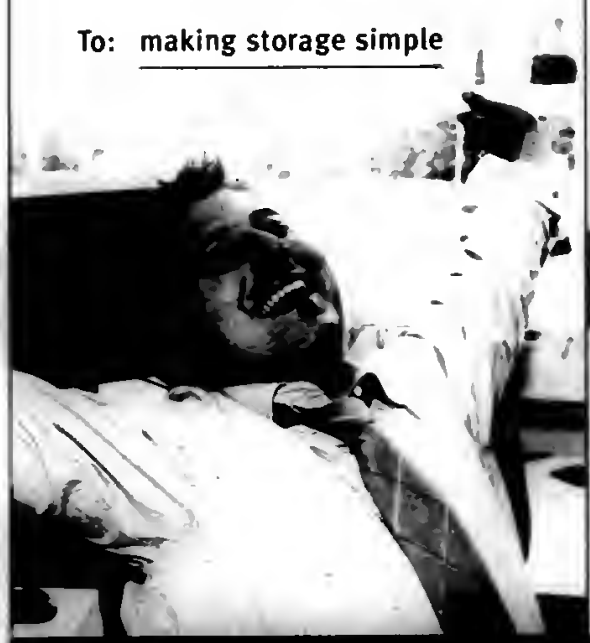
Reliability
Triggers are easily disabled, so that an audit trail wouldn't record fraudulent changes to data.

Slower consolidation
Triggers are written for one database server. But if you're auditing several at a time, it's very difficult to consolidate all of the audit trails into one.

SOURCE: LUMIGENT TECHNOLOGIES INC.

Fr: having storage headaches

To: making storage simple



NOW STORAGE RELIEF COMES IN AFFORDABLE, SCALABLE PACKAGES

EMC²
where information lives

Whether you need fast backup and complete protection or scalable and easy-to-manage storage consolidation for your midsize enterprise, EMC brings you solutions that are high on results—and simple to use. That's because it's easier than ever to put award-winning software, robust storage, and world-class technical support to work solving your business's critical IT challenges.

EMC CLARiiON iSCSI SOLUTION

Buy for $20,640

36 mo $651 Lease*

- EMC® CLARiiON® CX300i IP Storage Platform
- 365GB storage capacity (as priced), scalable up to 19TB
- EMC Navisphere® Workgroup license

EMC CLARiiON BACKUP SOLUTION

Buy for $22,253

36 mo $702 Lease*

- EMC® CLARiiON® CX300 Storage Platform
- 365GB storage capacity (as priced), scalable up to 19TB
- EMC Navisphere® Workgroup license
- EMC Dantz® Retrospect® Multiserver Backup software

EMC CLARiiON SAN SOLUTION

Buy for $24,525

36 mo $774 Lease*

- EMC® CLARiiON® CX300 Storage Platform
- 365GB storage capacity (as priced), scalable up to 19TB
- EMC Navisphere® Workgroup license
- 8-port switch

BUSINESS SOLUTIONS FOR MIDSIZE ENTERPRISES

CALL NOW 1-866-796-6369 or visit www.EMC.com/offers.

*Monthly lease amount is based on 36-month Fair Market Value lease, two payments in advance. This offer is valid until December 31, 2005 and is subject to credit approval and final lease documentation. This proposal is based on assumptions regarding the equipment configuration and sale and is subject to change if the configuration, software, services, treasury rates, or sale price changes. Pricing, specifications, availability, and terms of offer may change without notice.

EMC², EMC, CLARiiON, Dantz, Navisphere, Retrospect, and where information lives are registered trademarks of EMC Corporation. All other trademarks used herein are the property of their respective owners. © Copyright 2005 EMC Corporation. All rights reserved. Published in the USA. 08.05

Geek's Garden

UCSB Takes Step Toward Spin Processing

RESEARCHERS AT the University of California, Santa Barbara have potentially opened up a new avenue toward room-temperature quantum information processing. By demonstrating the ability to image and control single isolated electron spins in a diamond, they unexpectedly discovered a new channel for transferring information to other surrounding spins – an initial step toward spin-based information processing.

SOURCE: AWSCHALOM GROUP, UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Quantum information processing uses aspects of quantum mechanics as the basis for a new generation of computing and secure communication. The spin of a particle is quantum mechanical in nature and is considered a viable candidate for implementing such technologies.

A team of researchers, including graduate students Ryan Epstein and Felix Mendoza and their adviser, physics professor David Awschalom, were interested in the long-lived electronic spins of so-called nitrogen-vacancy impurities in the diamond crystal – defects that consist only of two atomic sites. So about two years ago, they embarked on developing a sensitive room-temperature microscope that would allow them to study individual defects through the light they emit.

This microscope, with its unique precision in the control of the magnetic field alignment, has allowed them to not only detect individual nitrogen-vacancy defects, but also small numbers of previously invisible "dark" spins from nitrogen defects in their vicinity. These spins are described as dark because they can't be directly detected by light emission, but it appears that they may prove extremely useful.

Instant Translation

SCIENTISTS AT Carnegie Mellon University and the University of Karlsruhe in Germany have unveiled technology that makes it possible to speak one language yet be understood in another.

At a videoconference-call demonstration last month, Carnegie Mellon computer science graduate student Shin Jae stood before an audience with 11 tiny electrodes affixed to the muscles of his cheeks, neck and throat. The Taiwan native then mouthed – without speaking aloud – the following phrase in Mandarin Chinese: "Let me introduce our new prototype."

The sensors captured electrical signals from Jae's facial muscles as they moved to form the silent Chinese words. In a [illegible] of seconds, [illegible] traveled [illegible] a vision we think is very exciting," Waibel said as he demonstrated the prototype of the translator. Launched in 2004, InterACT is a multimillion-dollar joint effort between the schools to develop advanced communication technologies.

Waibel said that in the future, electrodes could be implanted into the mouth and throat of a person who wanted to become multilingual. He also exhibited "translation goggles" – souped-up eyeglasses that displayed his words on a miniature virtual screen seen only by the wearer. Waibel's speech was translated from spoken English into Spanish text.

Waibel also demonstrated an array of small ultrasound speakers that delivered a narrow beam of sound in a foreign language to one person while others nearby heard the same [illegible] in the language in which [illegible] spoken. Developed [illegible] German car [illegible] could be [illegible] in [illegible]

DIFFERENCE ENGINES

Enter Software and the Universal Machine

Million-Atom Biology Simulation Could Improve Drug Development

RESEARCHERS AT Los Alamos National Laboratory have set a new world's record by performing the first million-atom computer simulation in biology. Using the "Q Machine" supercomputer, Los Alamos computer scientists have created a molecular simulation of the cell's protein-making structure, the ribosome. The project, simulating 2.64 million atoms in motion, is more than six times larger than any biological simulation performed to date.

The ribosome is the ancient molecular factory responsible for synthesizing proteins in all organisms. Using the new tool, the Los Alamos team led by Kevin Sanbonmatsu was the first to observe the entire ribosome in motion in atomic detail. This first simulation of the ribosome offers a new method for identifying potential antibiotic targets for diseases such as anthrax. Until now, only static snapshots of the structure of the ribosome have been available.

"Designing drugs based on only static structures of the ribosome might be akin to intercepting a missile knowing only the launch location and the target location with no radar information. Our simulations enable us to map out the path of the missile's trajectory," Sanbonmatsu said.

Sanbonmatsu's study focuses on decoding, the essential phase during protein synthesis within the cell wherein information transfers from RNA to protein, completing the information flow specified by Francis Crick in 1958. "The ribosome is, in fact, a nanoscale computer and is very much analogous to the 'CPU' of the cell," Sanbonmatsu said.

The multimillion-atom simulation was run on 768 of the Q Machine's 8,192 available processors.

Sanbonmatsu developed the simulation with Chang-Shung Tung of Los Alamos, as well as Simpson Joseph of the University of California, San Diego. ▸

SOURCE: FORRESTER RESEARCH INC., CAMBRIDGE, MASS.

your
infrastructure
may protect employees
inside

What protects
employees outside?

View the latest Websense Security Labs webcast:
"Six Degrees of Spyware"
www.websensesecuritylabs.com/webcast

It's no surprise; employees are often unaware of the threats that put the security of their laptops—and your network—at risk every day.

Websense Remote Filtering extends your usage policies to the mobile workforce, keeping you protected from external web threats anytime, anywhere.

Close the security gap.
Download your free evaluation today.
www.websense.com/remote

WEBSENSE.
SECURING PRODUCTIVITY.

© 2005 Websense, Inc. All rights reserved. Websense is a registered trademark of Websense, Inc. in the United States and certain international markets.

Geek's

A STROLL THROUGH THE TECHNOLOGY LANDSCAPE

UCSB Takes Step Toward Spin Processing

RESEARCHERS AT the University of California, Santa Barbara have potentially opened up a new avenue toward room-temperature quantum information processing. By demonstrating the ability to image and control single isolated electron spins in a diamond, they unexpectedly discovered a new channel for transferring information to other surrounding spins – an initial step toward spin-based information processing.

Image of a spinning electron

Quantum information processing uses aspects of quantum mechanics as the basis for a new generation of computing and secure communication. The spin of a particle is quantum mechanical in nature and is considered a viable candidate for implementing such technologies.

A team of researchers, including graduate students Ryan Epstein and Felix Mendoza and their adviser, physics professor David Awschalom, were interested in the long-lived electronic spins of so-called nitrogen-vacancy impurities in the diamond crystal – defects that consist only of two atomic sites. So about two years ago, they embarked on developing a sensitive room-temperature microscope that would allow them to study individual defects through the light they emit.

This microscope, with its unique precision in the control of the magnetic field alignment, has allowed them to not only detect individual nitrogen-vacancy defects, but also small numbers of previously invisible "dark" spins from nitrogen defects in their vicinity. These spins are described as dark because they can't be directly detected by light emission, but it appears that they may prove extremely useful.

GROVES OF ACADEME

Instant Translation

SCIENTISTS AT Carnegie Mellon University and the University of Karlsruhe in Germany have unveiled technology that makes it possible to speak one language yet be understood in another.

At a videoconferenced demonstration last month, Carnegie Mellon computer science graduate student Stan Jou stood before an audience with 11 tiny electrodes affixed to the muscles of his cheeks, neck and throat. The Taiwan native then mouthed – without speaking aloud – the following phrase in Mandarin Chinese: "Let me introduce our new prototype."

SOURCE: CARNEGIE MELLON UNIVERSITY

CMU graduate student and researcher Stan Jou's face is wired for translation.

The sensors captured electrical signals from Jou's facial muscles as they moved to form the silent Chinese words. In a matter of seconds, the information traveled to a computer that recognized the words and translated them into English and Spanish. The phrase was then displayed on a screen and spoken by the computer in both languages.

The translation system is probably a decade away from commercial availability, but it has the potential to bridge the language divide between countries and cultures, says Carnegie Mellon computer science professor Alex Waibel, who directs the International Center for Advanced Communication Technologies, or InterACT.

"This is a bit science fiction, but it's clearly a vision we think is very exciting," Waibel said as he demonstrated the prototype of the translator. Launched in 2004, InterACT is a multimillion-dollar joint effort between the schools to develop advanced communication technologies.

Waibel said that in the future, electrodes could be implanted into the mouth and throat of a person who wanted to become multilingual. He also exhibited "translation goggles" – souped-up eyeglasses that displayed his words on a miniature virtual screen seen only by the wearer. Waibel's speech was translated from spoken English into Spanish text.

Waibel also demonstrated an array of small ultrasound speakers that delivered a narrow beam of sound in a foreign language to one person while others nearby heard the same words in the language in which they were spoken. Developed in partnership with German car manufacturer DaimlerChrysler AG, this technology could be used to translate speeches in several languages simultaneously for an international audience, such as at the United Nations.

To make it possible to translate spontaneous speech about unlimited potential subjects, Waibel said his team developed statistical methods that allow the computer to learn from oodles of example translations available on the Internet. Rather than producing a word-by-word translation, the system builds phrases, smoothing out some of the quirks of sentence structure among languages.

Page compiled by Tommy Peterson.

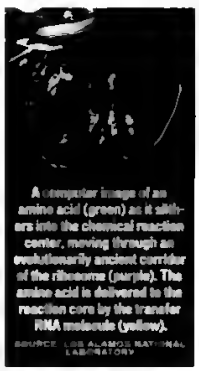
DIFFERENCE ENGINE

Enter Software and the Universal Machine

The Bombe

Million-Atom Biology Simulation Could Improve Drug Development

RESEARCHERS AT Los Alamos National Laboratory have set a new world's record by performing the first million-atom computer simulation in biology. Using the "Q Machine" supercomputer, Los Alamos computer scientists have created a molecular simulation of the cell's protein-making structure, the ribosome. The project, simulating 2.64 million atoms in motion, is more than six times larger than any biological simulation performed to date.



A computer image of an amino acid (green) as it slithers into the chemical reaction center, moving through an evolutionarily ancient corridor of the ribosome (purple). The amino acid is delivered to the reaction core by the transfer RNA molecule (yellow).
SOURCE: LOS ALAMOS NATIONAL LABORATORY

The ribosome is the ancient molecular factory responsible for synthesizing proteins in all organisms. Using the new tool, the Los Alamos team led by Kevin Sanbonmatsu was the first to observe the entire ribosome in motion in atomic detail. This first simulation of the ribosome offers a new method for identifying potential antibiotic targets for diseases such as anthrax. Until now, only static snapshots of the structure of the ribosome have been available.

"Designing drugs based on only static structures of the ribosome might be akin to intercepting a missile knowing only the launch location and the target location with no radar information. Our simulations enable us to map out the path of the missile's trajectory," Sanbonmatsu said.

Sanbonmatsu's study focuses on decoding the essential phase during protein synthesis within the cell wherein information transfers from RNA to protein, completing the information flow specified by Francis Crick in 1958. "The ribosome is, in fact, a nanoscale computer and is very much analogous to the 'CPU' of the cell," Sanbonmatsu said.

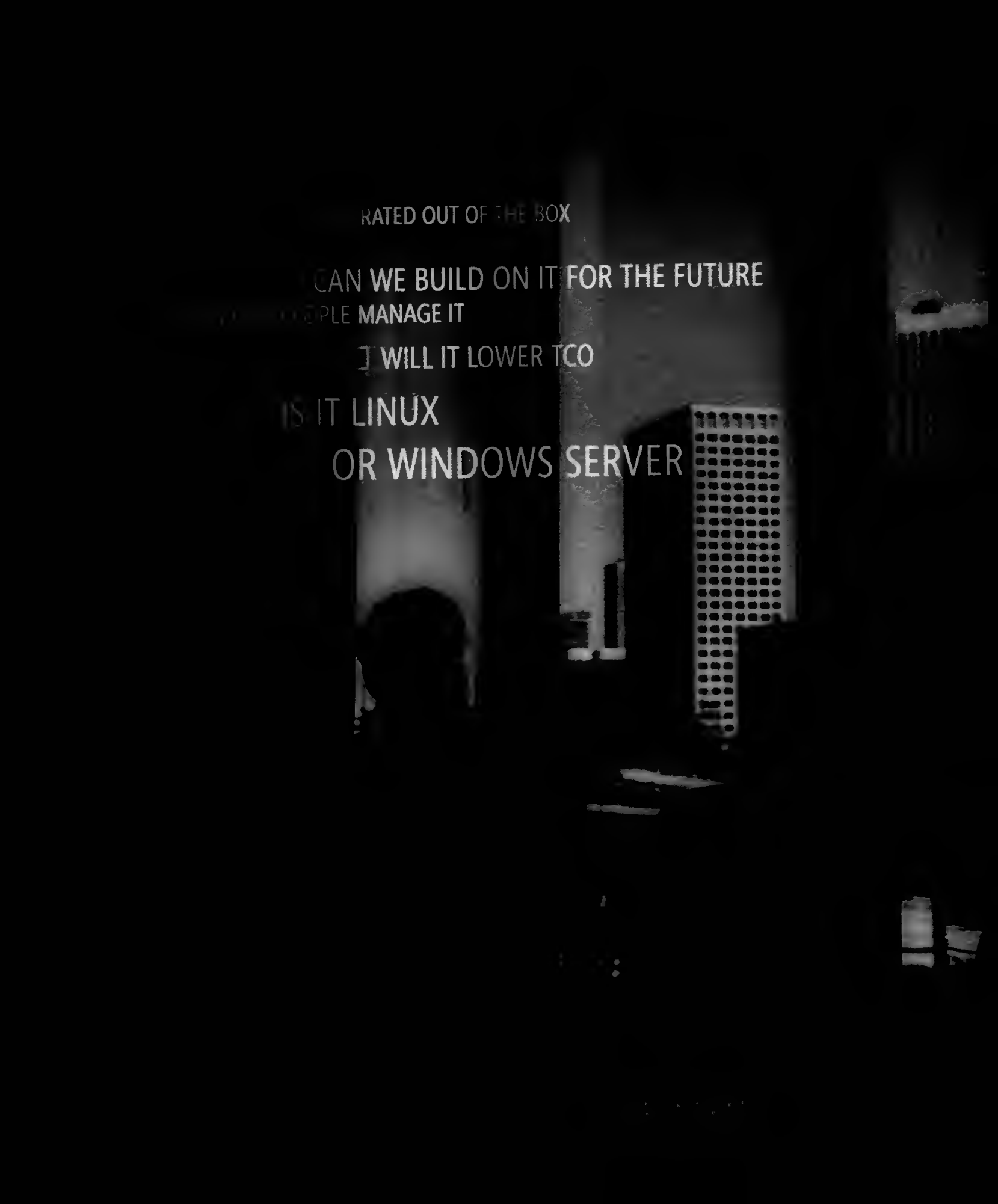
The multimillion-atom simulation was run on 768 of the Q Machine's 8,192 available processors. Sanbonmatsu developed the simulation with Chang Shung Tung of Los Alamos, as well as Simpson Joseph of the University of California, San Diego. ▶

GOING MOBILE

Projected percentage of total PC purchases that mobile devices like laptops or tablets will account for over the next 12 months:

BASE: 800 INFRASTRUCTURE AND DATA CENTER DECISION-MAKERS AT NORTH AMERICAN ENTERPRISES

SOURCE: FORRESTER RESEARCH INC., CAMBRIDGE, MASS.


RATED OUT OF THE BOX
CAN WE BUILD ON IT FOR THE FUTURE
PLE MANAGE IT
WILL IT LOWER TCO
IS IT LINUX
OR WINDOWS SERVER

Microsoft

☑ GET THE FACTS.

RADIOSHACK COMPARED TCO AND FOUND WINDOWS SERVER SYSTEM WILL SAVE THEM MILLIONS.

"In upgrading our aging UNIX-based servers, we considered both Windows Server™ and Linux. Windows Server System™ offered several advantages, including the ability to consolidate our in-store servers by 50% from 10,200 to 5,100—and a savings of several million dollars in hardware, software, systems management, and support costs."
–Ron Cook, Vice President and Chief Technology Officer, RadioShack ® RadioShack.

For these and other third-party findings, go to microsoft.com/getthefacts

Microsoft
Windows
Server System

BRIEFS

Business Objects' BI Tool Set for Preview

• Business Objects SA last week announced a preview release of its Crystal Reports tool for Eclipse. The tool will allow developers to create new business intelligence reports or use existing Crystal Reports documents and integrate them directly into applications. Developers can customize reports without leaving the Eclipse development environment, according to Business Objects. In addition, Business Objects is providing a development and test license of the embedded reporting engine that lets developers build report-viewing capabilities directly within client/server and Web applications. The preview release and the test license of the embedded reporting engine will be available before the end of 2005. General availability is expected in the second half of 2006. Pricing was not available.

Oracle Integrates Supply Chain Suite

• Oracle Corp. last month announced that it is integrating the Strategic Network Optimization and Production Scheduling products from the PeopleSoft Supply Chain Planning suite into its own E-Business Suite 11i Advanced Planning and Scheduling application. According to the company, the new integrated offering is meant to improve supply chain efficiency and cut risk. It will ship next year; pricing was not available.

New IBM Software To Track Blogs

• IBM has released software that allows enterprises to track blogs, newsgroups and other information sites. The Public Image Monitoring Solution is built on IBM's Unstructured Information Management Architecture, a framework for building applications that can analyze unstructured data. Pricing is based on configuration usage but begins at around $250,000 for enterprise use.

CURT A. MONASH

Managing Data At RAM Speed

TWO of IT's most consistent mandates are lower costs and more speed. To meet this demand for cheap speed, standard disk-based database management systems need help. Increasingly, this help is coming in the form of memory-centric data management technology.

Conventional DBMSs are designed to get data on and off of disks as safely, quickly and flexibly as possible. Much of their optimization is focused on one key bottleneck — the length of time it takes to find a random byte of data on disk, which is 1 million times as long as it might take to find the same byte in RAM. But the optimizations and access methods designed to address this bottleneck don't work so well once the data is safely in main memory. Memory-centric data management tools, using access methods that would be ridiculous in a disk-centric setup, can perform vastly better.

CURT A. MONASH is a consultant in Acton, Mass. You can reach him at curtmonash@monash.com.

If you want to query a used-book database more than 1 million times per minute, that's hard to do in a standard relational DBMS. But Progress Software's ObjectStore gets it done for Amazon.com. If you want to recalculate a set of OLAP cubes in real time, don't look to a disk-based system of any kind. But Applix's TM1 can do just that. And if you want to stick DBMS instances on 99 nodes of a telecommunications network, all persisting data to a 100th node, a disk-centric system isn't your best choice — but Solid Information Technology has a product that works just fine. At their core, each of those products relies on the same technical approach: vast amounts of pointer traversal. Access that random is pretty impractical on disk, where it can take over a millisecond to get from one point to the next. But it works great in 100- to 1,000-MHz RAM.

There's actually a broad variety of memory-centric products, most of them specialized for some particular kind of processing, whether OLAP or OLTP or event stream. They can be hard to find, being positioned as DBMS, quasi-DBMS, business intelligence features or some utterly new kind of middleware. They may come from top-tier software vendors or from the rawest of start-ups. But they are out there.

While memory-centric analytic technology has been around for a while, you may easily have missed it. It's been held back by the addressability limits of 32-bit processors and even more by the scalability limits on most parallel hardware architectures. But that was before massively parallel (a.k.a. blade/grid) architectures made it practical to link huge numbers of CPUs together. You want 100GB of RAM on your server? No problem. One terabyte is achievable too, if you can afford that much silicon. And it's just going to get easier, as the amount of RAM per board keeps doubling, based on the increasing performance of 64-bit chips.

Perhaps the simplest memory-centric approach to analytic data management is used in SAP's superfast BI Accelerator (nee HPA, nee Euclid). Basically, it takes an InfoCube (a prebuilt SAP star-schema warehouse), sucks it into RAM with suitable sparsity compression and executes all analytic queries as full-table scans. Competing with that is tough when you're bound by disk access speeds. The most unique approach is probably that of Applix's TM1, a memory-centric MOLAP tool that allows fully flexible evaluation rules without on-disk precalculation (and hence without the resulting data explosion). Thus, it simultaneously offers most of the benefits of analytic DBMS and most of the benefits of ordinary spreadsheets, and it deserves to be the basis of most planning applications unless and until something better comes along.

Memory-centric OLTP, not as dependent on total RAM available, has probably made more of a market impact to date, although mainly in a few niches. ObjectStore provides object-oriented memory-centric solutions for some of the most demanding OLTP apps in the world — not just the Amazon bookstore, but some airline reservations and scheduling systems as well. Products from Progress Software, TimesTen and start-up StreamBase Systems are used for highly real-time financial trading systems. TimesTen and Solid Information Technology support real-time management of billing and other functions on huge telecommunications networks.

I suspect that the "niche" label is about to come off. Oracle acquired TimesTen, and it probably didn't do so just for a few particular apps. Did you buy a lot of Real Application Clusters recently? Well, the sequel is a generic caching-performance story, and it's coming soon from an Oracle salesman near you.

For backup detail to this column, please see the DBMS2 blog at *www.dbms2.com.*

WANT OUR OPINION?

For more columns and links to our archives go to: **www.computerworld.com/columns**

BRIEFS

Business Objects' BI Tool Set for Preview

■ Business Objects SA last week announced a preview release of its Crystal Reports tool for Eclipse. The tool will allow developers to create new business intelligence reports or use existing Crystal Reports documents and integrate them directly into applications. Developers can customize reports without leaving the Eclipse development environment, according to Business Objects. In addition, Business Objects is providing a development and test license of the embedded reporting engine that lets developers build report-viewing capabilities directly within client/server and Web applications. The preview release and the test license of the embedded reporting engine will be available before the end of 2005. General availability is expected in the second half of 2006. Pricing was not available.

Oracle Integrates Supply Chain Suite

■ Oracle Corp. last month announced that it is integrating the Strategic Network Optimization and Production Scheduling products from the PeopleSoft Supply Chain Planning suite into its own E-Business Suite 11i Advanced Planning and Scheduling application. According to the company, the new integrated offering is meant to improve supply chain efficiency and cut risk. It will ship next year; pricing was not available.

New IBM Software To Track Blogs

■ IBM has released software that allows enterprises to track blogs, newsgroups and other information sites. The Public Image Monitoring Solution is built on IBM's Unstructured Information Management Architecture, a framework for building applications that can analyze unstructured data. Pricing is based on configuration usage but begins at around $250,000 for enterprise use.

CURT A. MONASH

Managing Data At RAM Speed

TWO of IT's most consistent mandates are lower costs and more speed. To meet this demand for cheap speed, standard disk-based database management systems need help. Increasingly, this help is coming in the form of memory-centric data management technology.

Conventional DBMSs are designed to get data on and off of disks as safely, quickly and flexibly as possible. Much of their optimization is focused on one key bottleneck — the length of time it takes to find a random byte of data on disk, which is 1 million times as long as it might take to find the same byte in RAM. But the optimizations and access methods designed to address this bottleneck don't work so well once the data is safely in main memory. Memory-centric data management tools, using access methods that would be ridiculous in a disk-centric setup, can perform vastly better.

If you want to query a used-book database more than 1 million times per minute, that's hard to do in a standard relational DBMS. But Progress Software's ObjectStore gets it done for Amazon.com. If you want to recalculate a set of OLAP cubes in real time, don't look to a disk-based system of any kind. But Applix's TM1 can do just that. And if you want to stick DBMS instances on 99 nodes of a telecommunications network, all persisting data to a 100th node, a disk-centric system isn't your best choice — but Solid Information Technology has a product that works just fine. At their core, each of those products relies on the same technical approach: vast amounts of pointer traversal. Access that random is pretty impractical on disk, where it can take over a millisecond to get from one point to the next. But it works great in 100- to 1,000-MHz RAM.

There's actually a broad variety of memory-centric products, most of them specialized for some particular kind of processing, whether OLAP or OLTP or event stream. They can be hard to find, being positioned as DBMS, quasi-DBMS, business intelligence features or some utterly new kind of middleware. They may come from top-tier software vendors or from the rawest of start-ups. But they are out there.

While memory-centric analytic technology has been around for a while, you may easily have missed it. It's been held back by the addressability limits of 32-bit processors and even more by the scalability limits on most parallel hardware architectures. But that was before massively parallel (a.k.a. blade/grid) architectures made it practical to link huge numbers of CPUs together. You want 100GB of RAM on your server? No problem. One terabyte is achievable too, if you can afford that much silicon. And it's just going to get easier, as the amount of RAM per board keeps doubling, based on the increasing performance of 64-bit chips.

Perhaps the simplest memory-centric approach to analytic data management is used in SAP's superfast BI Accelerator (nee HPA, nee Euclid). Basically, it takes an InfoCube (a prebuilt SAP star-schema warehouse), sucks it into RAM with suitable sparsity compression and executes all analytic queries as full-table scans. Competing with that is tough when you're bound by disk access speeds. The most unique approach is probably that of Applix's TM1, a memory-centric MOLAP tool that allows fully flexible evaluation rules without on-disk precalculation (and hence without the resulting data explosion). Thus, it simultaneously offers most of the benefits of analytic DBMS and most of the benefits of ordinary spreadsheets, and it deserves to be the basis of most planning applications unless and until something better comes along.

Memory-centric OLTP, not as dependent on total RAM available, has probably made more of a market impact to date, although mainly in a few niches. ObjectStore provides object-oriented memory-centric solutions for some of the most demanding OLTP apps in the world — not just the Amazon bookstore, but some airline reservations and scheduling systems as well. Products from Progress Software, TimesTen and start-up StreamBase Systems are used for highly real-time financial trading systems. TimesTen and Solid Information Technology support real-time management of billing and other functions on huge telecommunications networks.

I suspect that the "niche" label is about to come off. Oracle acquired TimesTen, and it probably didn't do so just for a few particular apps. Did you buy a lot of Real Application Clusters recently? Well, the sequel is a generic caching-performance story, and it's coming soon from an Oracle salesman near you.

For backup detail to this column, please see the DBMS2 blog at *www.dbms2.com*. ■

WANT OUR OPINION?

For more columns and links to our archives go to: www.computerworld.com/columns

THE ONLY WAY TO DO BUSINESS
OUT OF THE OFFICE IS WITH
MULTIPLE MOBILE DEVICES.

FACT #91:

AVAYA IP TELEPHONY GIVES YOU SINGLE-DEVICE MOBILITY, LIKE E-MAIL ON YOUR CELL PHONE.

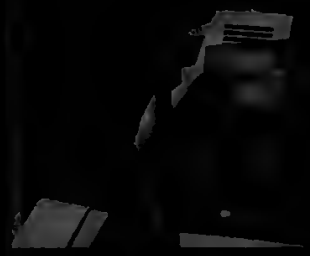
AVAYA

COMMUNICATIONS
AT THE HEART OF BUSINESS

GET YOUR FREE COPY OF "MOBILE WORKFORCE FOR DUMMIES" AT AVAYA.COM/DUMMIES

©2005 Avaya Inc. All Rights Reserved. Avaya and the Avaya Logo are registered trademarks of Avaya Inc., and may be registered in certain jurisdictions. All other trademarks are the property of their respective owners.

Award-winning products have
a way of transforming the office.



All the productivity you want.
All the document security you need.

sharpusa.com/documents

SHARP.

Q&A
Sites for Sore Eyes
Jeffrey Tarter of the Association of Support Professionals tells *Computerworld* what makes the best Web sites great. **PAGE 48**

Storage: Round Two
You may think storage providers went out with the dot-com millionaires, but hosted storage services are back. That's because storage is being recognized by users like Berlitz's Sean Power as strategic — and out of control. **PAGE 54**

OPINION
Penny Wise and Pound Foolish
Software consolidation has many obvious benefits, says Bart Perkins, but it's time to look at some of the more troubling long-term implications. **PAGE 58**

JOHN DALE

Beyond the Water Cooler

DOES CORPORATE BLOGGING CHANGE THE LEGAL LANDSCAPE? By John P. Hutchins

IT MENTOR

BUSINESS LAWYERS have a standard line to warn clients about undisciplined employee conversation about a pending lawsuit: "Avoid all water-cooler chatter." Oh, how the Internet has changed things. First, e-mail changed the speed and synchronicity of communications. And now, many companies allow employees to express opinions on just about any subject through corporate blogging.

Corporate decision-makers who wonder whether blogs present new legal challenges should know that there are a number of points to think through. And there are some differences, legally speaking, between internal and external blogs. Here's a look at some of the issues.

Inside the Company

Internal blogs — those that aren't published to anyone outside the company — are just another form of internal electronic communication. As such, they present issues similar to those surrounding e-mail and instant messaging.

One of the most important concerns blogging raises is that, like message boards, it presents the opportunity for anonymous communication.

It's probably a good idea not to allow truly anonymous use of an internal blog. (IT professionals can configure internal blogs so that all users can be identified, at least by the company.) Anonymous speech has certain advantages for would-be whistle-blowers, but there are other ways to report things anonymously without resorting to blogs. As a general matter, the potential for anonymous speech creates an atmosphere that can encourage irresponsible behavior, such as harassment, defamation and gossip. Except where there's a clearly identifiable benefit, anonymous speech in the workplace should be avoided.

The only legal action that most companies need to take with respect to internal blogging is to review their existing electronic communications and document-retention policies to ensure that they are broad enough to cover blogging.

As a matter of good business practice, it's wise to review these policies about once a year, whether you permit blogging or not. But it's especially worth noting that any such policy is only as good as a company's willingness to consistently enforce it. Policies that are published but not enforced can cause more harm than good.

For example, if a company enforces

the policy by taking adverse action against one employee but not another, it can create problems if the employee against whom adverse action is taken is in a "protected class" under federal employment laws. Delta Air Lines Inc. is facing that very allegation in a suit recently filed by a former flight attendant who blogged. This is just one example of the potential problems that can arise through inconsistent enforcement. Consistent enforcement of internal policies should always be a priority.

Beyond Company Walls

External company-sponsored blogs offer many potential advantages. But rather than jumping on the unrestricted-blogging bandwagon, it might be a better legal strategy to exercise tight control over external blogs.

Most legal problems that might arise from external blogs are similar to those associated with other forms of external communication by or about a company or its employees. Legally speaking, the type of electronic communication that is most analogous to external blogging is the Internet message board. Uncontrolled bloggers may engage in the type of conduct that occurs frequently on public message boards, such as the following:

- Making statements about financial performance aimed at impacting share price, including posing as a company insider or, in rare cases, actually sharing inside information.
- Discussing sensitive corporate personnel issues.
- Defaming the company, its management or others.
- Disclosing competitively sensitive business information, such as trade secrets.

Generally, companies try to deter these problems among employees by enforcing standards of conduct contained in electronic communications policies, codes of ethics or contractual agreements with individual employees.

Some companies, like Sun Microsystems Inc., choose to rely on policy alone and simply trust their employees to use good judgment. But employees don't always use good judgment, of course, and bad judgment is usually what gets companies sued.

Sun's policy acknowledges that it is "accepting higher risks in the interest of higher rewards." If you're not particularly interested in higher risks, you might consider allowing only a small group of people to post to the corporate blog. Only readers who might use the "comments" feature to respond to blogs would then constitute a real threat.

Thus, the issues of whether to allow comments at all, and if so, whether to screen comments prior to their posting on a company-sponsored blog, are of paramount importance. There are potential business advantages to the comment feature. But there are also hazards to be considered.

The fundamental issue to understand is anonymity. As with message boards, it's possible for employees (as well as nonemployees) to communicate on external blogs in almost complete anonymity. Courts are very deferential to the right to engage in anonymous Internet speech. Even where a blogger may have behaved badly, getting access to his identity is tough.

A company harmed by a posted comment would need to file a "John Doe" lawsuit against the anonymous blogger. And even then, most courts would allow the blogger to defend the suit anonymously until the company made a convincing argument that its claim had merit, justifying disclosure of the blogger's identity. Courts have taken that stance in many cases related to message-board postings, and in October, the Delaware Supreme Court issued the first published opinion on the rights of an anonymous blogger, reaching a similar conclusion.

The freedom that comes from Internet anonymity often breeds irresponsible behavior. Blogs are no exception. In fact, two negative behaviors that have been affecting the Internet for a decade are making the comment feature of blogs especially difficult to manage. One such behavior is spam.

Bad Blogging Behavior

Since the passage of the CAN-SPAM Act, the Federal Trade Commission has been successfully bringing actions against commercial e-mail spammers and, to some degree, curtailing their activity. As a result, commercial spammers have started a new Internet trend: using the comment feature on popular blogs to send unwanted commercial solicitations to large numbers of blog users. This practice isn't currently covered by the CAN-SPAM Act.

Another negative behavior is Internet defamation. By allowing comments, a company might unwittingly become a secondary publisher of defamatory statements. If a company makes a blog available for unrestricted posting of comments, a blogger's defamatory statement about some third party may be imputed to the company sponsoring the blog, even if the comment is quickly deleted.

Unlike Internet service providers, which enjoy immunity for their message boards under the Communications Decency Act, a company sponsoring an unrestricted external blog would likely be considered a "publisher" of any statement proven to be defamatory and, thus, potentially liable.

A screening process for comments is worth considering, but it raises both legal and nonlegal issues.

From a nonlegal perspective, blogs are increasingly popular because they encourage unfettered speech. Some argue that screening reduces the authenticity of a blog. This is a business decision, but it should be noted that constraining potentially harmful speech is a normal aspect of virtually every other form of communication.

From a legal perspective, screening comments may give rise to a duty to protect bloggers from harmful speech, imposing potential liability on the screener where none might otherwise exist. Therefore, if a company decided to initiate a screening process in connection with a company-sponsored external blog, it would be a good idea to publish a notice attempting to limit its liability in connection with the blog. Such a notice may not be fail-safe, but including it is a better option than not including it.

One other issue to consider is whether the company blog should invoke the protections afforded by the Digital Millennium Copyright Act. The DMCA generally protects a secondary publisher of copyrighted works from claims of "vicarious" or "contributory" copyright infringement, if the secondary publisher follows the DMCA's safe-harbor notice scheme. The actual terms and nuances of the DMCA notice rules are beyond the scope of this article, but it's a good idea to embed these notices in any external blog.

One thing about blogs is certain: Everyone has an opinion. The thing to remember is that blogging is just another form of corporate communication, and communication has rewards as well as risks. Before you embark on a corporate blogging adventure, communicate with your lawyers and get their opinion. They may even have a blog of their own.

John Hutchins is a partner in the Atlanta office of Troutman Sanders LLP, where he focuses on technology and intellectual property issues. Contact him at john.hutchins@troutmansanders.com.

Why Blog?

Expertise
To position yourself and your company as the thought leader in your market.

Customer Relations
To develop a more personal relationship with your customers and to gain feedback and insights.

Media Relations
To become a site the media checks instead of just being a source of press releases.

Collaboration
To create an informal workspace to keep project teams updated.

Knowledge Management
To enable employees to find information and resources for on-the-job learning.

Recruitment
To be seen as an attractive employer because you're regarded as a thought leader.

Testing
To publish an idea or preview a product to see if it generates interest.

Search Engine Boost
To raise your visibility. Search engines reward sites that are updated often, link to other sites and have many inbound links.

the policy by taking adverse action against one employee but not another, it can create problems if the employee against whom adverse action is taken is in a "protected class" under federal employment laws. Delta Air Lines Inc. is facing that very allegation in a suit recently filed by a former flight attendant who blogged. This is just one example of the potential problems that can arise through inconsistent enforcement. Consistent enforcement of internal policies should always be a priority.

Beyond Company Walls

External company-sponsored blogs offer many potential advantages. But rather than jumping on the unrestricted-blogging bandwagon, it might be a better legal strategy to exercise tight control over external blogs.

Most legal problems that might arise from external blogs are similar to those associated with other forms of external communication by or about a company or its employees. Legally speaking, the type of electronic communication that is most analogous to external blogging is the Internet message board. Uncontrolled bloggers may engage in the type of conduct that occurs frequently on public message boards, such as the following:

- Making statements about financial performance aimed at impacting share price, including posing as a company insider or, in rare cases, actually sharing inside information.
- Discussing sensitive corporate personnel issues.
- Defaming the company, its management or others.
- Disclosing competitively sensitive business information, such as trade secrets.

Generally, companies try to deter these problems among employees by enforcing standards of conduct contained in electronic communications policies, codes of ethics or contractual agreements with individual employees.

Some companies, like Sun Microsystems Inc., choose to rely on policy alone and simply trust their employees to use good judgment. But employees don't always use good judgment, of course, and bad judgment is usually what gets companies sued.

Sun's policy acknowledges that it is "accepting higher risks in the interest of higher rewards." If you're not particularly interested in higher risks, you might consider allowing only a small group of people to post to the corporate blog. Only readers who might use the "comments" feature to respond to blogs would then constitute a real threat.

Thus, the issues of whether to allow comments at all, and if so, whether to screen comments prior to their posting on a company-sponsored blog, are of paramount importance. There are potential business advantages to the comment feature. But there are also hazards to be considered.

SOURCE: WWW.CORPORATEBLOGGING.INFO

The fundamental issue to understand is anonymity. As with message boards, it's possible for employees (as well as nonemployees) to communicate on external blogs in almost complete anonymity. Courts are very deferential to the right to engage in anonymous Internet speech. Even where a blogger may have behaved badly, getting access to his identity is tough.

A company harmed by a posted comment would need to file a "John Doe" lawsuit against the anonymous blogger. And even then, most courts would allow the blogger to defend the suit anonymously until the company made a convincing argument that its claim had merit, justifying disclosure of the blogger's identity. Courts have taken that stance in many cases related to message-board postings, and in October, the Delaware Supreme Court issued the first published opinion on the rights of an anonymous blogger, reaching a similar conclusion.

The freedom that comes from Internet anonymity often breeds irresponsible behavior. Blogs are no exception. In fact, two negative behaviors that have been affecting the Internet for a decade are making the comment feature of blogs especially difficult to manage. One such behavior is spam.

Bad Blogging Behavior

Since the passage of the CAN-SPAM Act, the Federal Trade Commission has been successfully bringing actions against commercial e-mail spammers and, to some degree, curtailing their activity. As a result, commercial spammers have started a new Internet trend: using the comment feature on popular blogs to send unwanted commercial solicitations to large numbers of blog users. This practice isn't currently covered by the CAN-SPAM Act.

Another negative behavior is Internet defamation. By allowing comments, a company might unwittingly become a secondary publisher of defamatory statements. If a company makes a blog available for unrestricted posting of comments, a blogger's defamatory statement about some third party may be imputed to the company sponsoring the blog, even if the comment is quickly deleted.

Unlike Internet service providers, which enjoy immunity for their message boards under the Communications Decency Act, a company sponsoring an unrestricted external blog would likely be considered a "publisher" of any statement proven to be defamatory and, thus, potentially liable.

A screening process for comments is worth considering, but it raises both legal and nonlegal issues.

From a nonlegal perspective, blogs are increasingly popular because they encourage unfettered speech. Some argue that screening reduces the authenticity of a blog. This is a business decision, but it should be noted that constraining potentially harmful speech is a normal aspect of virtually every other form of communication.

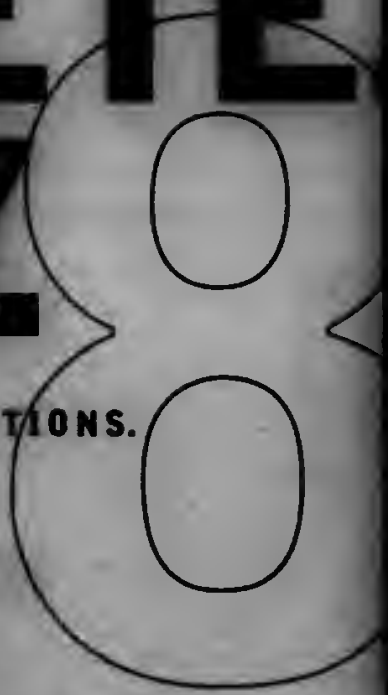
From a legal perspective, screening comments may give rise to a duty to protect bloggers from harmful speech, imposing potential liability on the screener where none might otherwise exist. Therefore, if a company decided to initiate a screening process in connection with a company-sponsored external blog, it would be a good idea to publish a notice attempting to limit its liability in connection with the blog. Such a notice may not be fail-safe, but including it is a better option than not including it.

One other issue to consider is whether the company blog should invoke the protections afforded by the Digital Millennium Copyright Act. The DMCA generally protects a secondary publisher of copyrighted works from claims of "vicarious" or "contributory" copyright infringement, if the secondary publisher follows the DMCA's safe-harbor notice scheme. The actual terms and nuances of the DMCA notice rules are beyond the scope of this article, but it's a good idea to embed these notices in any external blog.

One thing about blogs is certain: Everyone has an opinion. The thing to remember is that blogging is just another form of corporate communication, and communication has rewards as well as risks. Before you embark on a corporate blogging adventure, communicate with your lawyers and get their opinion. They may even have a blog of their own.

John Hutchins is a partner in the Atlanta office of Troutman Sanders LLP, where he focuses on technology and intellectual property issues. Contact him at john.hutchins@troutmansanders.com.

BI. SIMPLE. COMPLETE. FINALLY.



NO LIMITATIONS. NO IMITATIONS.

Business Intelligence made a promise: to make it simple for everyone to use information to make better decisions. But, given your complex IT infrastructure, the reality of getting a single BI standard in place across the company has been anything but simple. Until now.

Introducing Cognos 8 Business Intelligence, the one solution built to break down the barriers limiting BI's potential. With a complete Web Services-based SOA. A simple browser-based interface. A full range of BI capabilities — reporting, analysis, scorecarding, dashboarding and more — all in a single product and on a single architecture. And the BI foundation for companies demanding a simpler path to a complete performance management system.

It's everything BI promised to be. And now, it's here.
To learn more and to find out where you can preview Cognos 8, go to cognos.com/simple

COGNOS 8 BUSINESS INTELLIGENCE.

COGNOS®
THE NEXT LEVEL OF PERFORMANCE™

SITES FOR SORE EYES

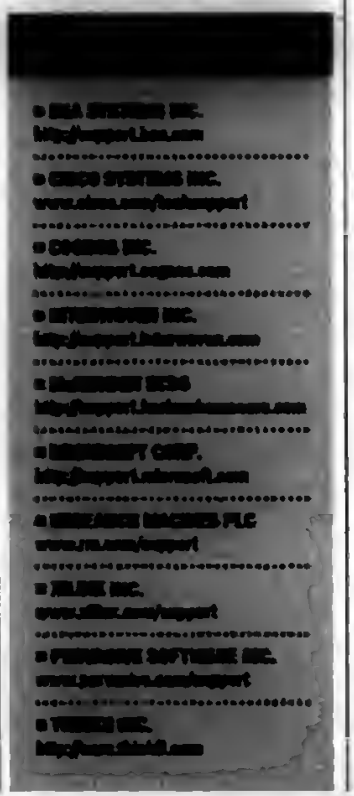
Lessons learned from the top support Web sites of 2005 - and the also-rans.

"The Year's Ten Best Web Support Sites - 2005" is on in-depth look at the makings of o great customer support site. Published by the Association of Support Professionals (ASP), a research organization that deals with support and service issues, and reflecting the evaluations of more than 50 judges, the report details what works and what doesn't work in sites ranging from internal employee portals to vendor support Web sites. ASP Executive Director **Jeffrey Tarter** *talked with Computerworld's Kathleen Melymuka about what makes o great Web site.*

Just what is a Web support site? When we first got into this Web support issue, Web support sites on the vendor side were essentially online knowledge bases. Companies were taking their internal Q&As and putting them on the Web. Pretty easy proposition. Then they turned into more like portals for all kinds of business process information. And on the vendor side, we started to see training and consulting and license management and patches and anything a customer could possibly be interested in to support the product.

On the IT side — this is relatively new — the sites are beginning to be more focused on all the business processes within the company. I was just doing a site evaluation for a very, very large government organization in Washington, and they have this fascinating site that covers everything from ordering airline tickets to expense accounts to training. It's not related to software support but to supporting all of their employees. It's very effective, and it's getting traffic from their employees who would have been trained or supported individually in things like filling out an expense account and buying airline tickets. Now it's all on the site.

What would IT managers learn from looking at the top 10 report? I'd love to see them recognize the potential of moving support away from bodies to Web pages. It's not an easy transition. The potential is there, but lots of companies tend to see it as a cost-deflection issue. That's not really what it is. It's about the best way to transfer information to people. It's a huge philosophical question that gets into the issues of corporate culture, interaction with employees and customers.



Let's walk through the ASP's criteria. You start with overall usability, design and navigation. What do the judges look for? The judges look for good, clean navigation and text, which turns out to be harder to achieve than it seems. We often see sites where the people developing the site were conned by developers into creating all kinds of dynamic pages. It's the same old story: Developers promise no performance problems, but once it's up, pages move like molasses.

These sites also tend to expose silo problems in companies. I've seen this even with very big, sophisticated organizations. Every little department has its own content and its own graphical standards and its own turf on the Web site. That's awful for someone trying to navigate.

I was evaluating a site recently where the incident-reporting form was different for software than for hardware because they were two different departments. If you had a hardware question, you went to a page that looked very different from where you'd go for a software question. We penalize people for that kind of confusion.

For some companies, this is a really tough issue; for others, there's enough centralized IT control that it's not an issue. I guess the real issue is, do the site developers have the guts to fight this problem when they see it? Lots of times they don't.

Another category you evaluate is knowledge and search implementation. What makes a good search function? The big issue is recognizing that people have different learning styles. Some want to look up a problem and have it solved with a tech note. Others may need some training, templates, cookbook solutions or consulting, and it's tricky to bring all these things together.

If you just use a problem/solution model, then that probably isn't going to satisfy a lot of people. At an accounting software company, for example, the problem might not be solved by a tech note because it might be that the user doesn't understand double-entry bookkeeping. Or maybe he needs a template of a chart of accounts. Or maybe be needs a consultant to come in and set up the books. So if it's just a problem/solution approach, that isn't going to work.

Interactive features is another criterion. What do you want to see there? The same as you see anywhere else on the Web. It's particularly important for support sites because problem solving tends to be more complex than ordering a product. Ordering a product is a linear process: Give the order and take the money.

Problem solving tends to go off into more paths, some of which are dead ends, so you need some way for there to be a dialogue or exchange of information or a progressive disclosure of information. A tree structure for solving a problem can be very complicated. That's why people in tech support have conversations: You need feedback. Once you start opening up the issue of feedback, this gets very threatening for classic command-and-control organizations. They don't want people to say, "This is confusing" or "There's a better solution than you're offering." But that's what you should want. Interactivity means letting employees and customers have a say in what you're doing.

But interactivity is also good just as a way to keep people engaged, and it helps lock in relationships with people so they keep using the Web for more than just very rare problems. If they come only when they have a serious problem, they may not remember how to use the site or they many not have a lot of faith in it. But if they come to order airline tickets and answer expense account questions, they will probably take a more complex problem to the Web, and that's a real gain.

The final item is personalization. How impor-

Continued on page 51

The cost of getting **bigger just got smaller.**

You need more storage. You don't need more fees or systems to manage. The Pillar Axiom™ storage system lets you add performance and capacity up to 300 TB per system, without multiple software license fees. It empowers you to manage data on multiple tiers, whether in SAN, NAS or both, through one simple user interface. Because Pillar delivers top-tier performance and capacity, often for less than what many companies pay just to maintain and operate their storage systems, it can really improve your bottom line.

To hear about our new approach to managing data storage, you owe it to yourself to schedule a half-hour briefing.
Call **1-877-252-3706** or visit **www.pillardata.com/smaller**

Learn the truth about networked storage.
Get your FREE subscription to AXIOM Journal

pillar™
DATA SYSTEMS

© 2005 Pillar Data Systems Inc. All rights reserved. Pillar Data Systems, Pillar Axiom, and the Pillar logo are all trademarks of Pillar Data Systems.

secure
thinair
poweredbycisco.
Passwords, purchase orders, e-mails.
All flying through thin air, now protected through thin air.
Cisco self-managing WLANs let you give freedom to users
without giving up control. So collaboration happens
from conference room to company canteen.
And private business never becomes public domain.
For more on Cisco WLANs, go to
cisco.com/poweredby.
collaboration

Continued from page 48

tant is that in a Web support site, and how do the best companies implement it? It varies. On the vendor side, we don't see much need for it with a small, single-product company. You can assume customers are pretty much alike. But as Web sites get more complex, it's almost essential to customize. For IT sites, that's generally really important. There's a big difference between the kind of information you give an executive versus a staff person. There's also going to be big differences among departments and their responsibilities — sales people will want something different than accounting people. That's where you want to personalize.

Do you see many IT sites? We've had IT sites, but they tend to be behind the curve. Typically, IT organizations are five years behind the software companies on seeing the potential for support sites, because they're mostly focused on help desk issues, and corporate help desk deals with the simple stuff and immediately escalates anything difficult.

We got an entry the other day from a large utility company about providing electricity to customers. It answer a lot of questions, from billing to where not to dig [to avoid hitting a power line].

Some years ago, we were encouraging entries from corporate help desks, and they were lousy sites. So we stopped promoting in that area. But one of our winners this year was an internal site: McKesson. It was a very strong entry, and now I'm seeing really excellent IT sites.

What advice would you give to IT managers implementing or maintaining Web support sites? I never give advice. But there is a need to bring users into the process as much as they can. It's not always obvious what a given site should do. And this is true even on the vendor side. Often, IT has a very narrow definition of tech support, when customers have a different set of priorities. It's dangerous to assume that the IT people know what should be on the site. Users also notice inconsistencies, political issues, usability issues.

In some companies, old-timers know the jargon and shortcut ways of saying things, but those are incomprehensible to new employees — and they are the people who need to learn this stuff. If they open up a business process explanation and see nothing but jargon and acronyms, they'll give it up. So it helps to get some feedback from people.

What would you say are the major challenges Web support sites still face? My guess is the big issues over the next few years will have to do with the broad area of usability. I think we've established that the concept works. You don't hear as many people saying, "No one will ever use a Web site for support, because they want to talk to live people." That issue seems to have gone away. Now we actually have the opposite problem of vendors and IT organizations throwing everything onto the Web site so you get these really complicated, hard-to-navigate sites, and that turns people off.

We have to fine-tune navigation to make sure people don't get lost. It's not immediately obvious how huge some of these sites are, but it's not unusual for there to be 50,000 to 100,000 documents, and not just the same kind: You've got documentation, training classes, articles, presentations, stories, patches, diagnostic tools — it goes on forever.

For people doing multilanguage support, it's overwhelming because it's a moving target. Every time someone solves a new problem, they have to get the information translated and updated on localized sites. And if you don't do it fast, people in Japan realize that the only place for current information is the English-language site, and they stop using the Japanese site.

If you really want scary: People don't have all the same products in the same markets at the same time. The current product in Venezuela may not be the same as in Argentina. That's scary. But talking about multinational corporations — their own business processes have to be consistent or at least accommodate across the whole world.

Ordering an airline ticket seems trivial, but when you're a multinational organization, suddenly that simple business process has become incredibly complicated. Somehow you have to let people figure out the difference between Washington, D.C., and Bangalore. So you see why the complexity is increasingly hard to manage. That's the big challenge: not to suffocate under your own success. ●

Cisco Powered

when you decide on the service, this logo will help you decide on a provider.

Make sure you get the latest in network services by looking for the Cisco Powered logo. From managed business voice to managed security and virtual private networks, this logo means the service is delivered over a network built end-to-end with Cisco equipment—which meets the highest standards for performance and reliability.

To find a Cisco-recommended service provider or to download the *Cisco Guide to Buying Managed Network Services*, go to cisco.com/cpn.

©2005 Cisco Systems, Inc. All rights reserved.

Principles of a Great Support Site

- Shorten the path to useful content
- Organize support resources around "product" silos, whether actual products or information products.
- Build personal portals that let users create "my support" pages.
- Upgrade the search engine
- Clean up the clutter
- Standardize the look and taxonomy
- Avoid dead ends, give an easy path backward to a new jumping-off point

Continued from page 48

tant is that in a Web support site, and how do the best companies implement it? It varies. On the vendor side, we don't see much need for it with a small, single-product company. You can assume customers are pretty much alike. But as Web sites get more complex, it's almost essential to customize. For IT sites, that's generally really important. There's a big difference between the kind of information you give an executive versus a staff person. There's also going to be big differences among departments and their responsibilities — sales people will want something different than accounting people. That's where you want to personalize.

Do you see many IT sites? We've had IT sites, but they tend to be behind the curve. Typically, IT organizations are five years behind the software companies on seeing the potential for support sites, because they're mostly focused on help desk issues, and corporate help desk deals with the simple stuff and immediately escalates anything difficult.

We got an entry the other day from a large utility company about providing electricity to customers. It answer a lot of questions, from billing to where not to dig [to avoid hitting a power line].

Some years ago, we were encouraging entries from corporate help desks, and they were lousy sites. So we stopped promoting in that area. But one of our winners this year was an internal site: McKesson. It was a very strong entry, and now I'm seeing really excellent IT sites.

What advice would you give to IT managers implementing or maintaining Web support sites? I never give advice. But there is a need to bring users into the process as much as they can. It's not always obvious what a given site should do. And this is true even on the vendor side. Often, IT has a very narrow definition of tech support, when customers have a different set of priorities. It's dangerous to assume that the IT people know what should be on the site. Users also notice inconsistencies, political issues, usability issues.

In some companies, old-timers know the jargon and shortcut ways of saying things, but those are incomprehensible to new employees — and they are the people who need to learn this stuff. If they open up a business process explanation and see nothing but jargon and acronyms, they'll give it up. So it helps to get some feedback from people.

What would you say are the major challenges Web support sites still face? My guess is the big issues over the next few years will have to do with the broad area of usability. I think we've established that the concept works. You don't hear as many people saying, "No one will ever use a Web site for support, because they want to talk to live people." That issue seems to have gone away. Now we actually have the opposite problem of vendors and IT organizations throwing everything onto the Web site so you get these really complicated, hard-to-navigate sites, and that turns people off.

We have to fine-tune navigation to make sure people don't get lost. It's not immediately obvious how huge some of these sites are, but it's not unusual for there to be 50,000 to 100,000 documents, and not just the same kind: You've got documentation, training classes, articles, presentations, stories, patches, diagnostic tools — it goes on forever.

For people doing multilanguage support, it's overwhelming because it's a moving target. Every time someone solves a new problem, they have to get the information translated and updated on localized sites. And if you don't do it fast, people in Japan realize that the only place for current information is the English-language site, and they stop using the Japanese site.

If you really want scary: People don't have all the same products in the same markets at the same time. The current product in Venezuela may not be the same as in Argentina. That's scary. But talking about multinational corporations — their own business processes have to be consistent or at least accommodate across the whole world.

Ordering an airline ticket seems trivial, but when you're a multinational organization, suddenly that simple business process has become incredibly complicated. Somehow you have to let people figure out the difference between Washington, D.C., and Bangalore. So you see why the complexity is increasingly hard to manage. That's the big challenge: not to suffocate under your own success. ■

Cisco Powered

when you decide on the service, this logo will help you decide on a provider.

Make sure you get the latest in network services by looking for the Cisco Powered logo. From managed business voice to managed security and virtual private networks, this logo means the service is delivered over a network built end-to-end with Cisco equipment—which meets the highest standards for performance and reliability.

To find a Cisco-recommended service provider or to download the Cisco *Guide to Buying Managed Network Services* go to cisco.com/cpn

©2005 Cisco Systems, Inc. All rights reserved.

TROJAN HORSES
TURNED AWAY
AT THE GATE
MICROSOFT COM/SECURITY
Microsoft
Microsoft

Storage: Round 2

decade, are back with new services for new needs. By Lucas Mearian

SEAN POWER, director of strategic technology at Berlitz International Inc. in Princeton, N.J., saw his data center grow to the point where the majority of his IT workers were supporting storage and servers instead of supporting employees in about 500 field offices. "We were having to build internal resources while not providing services to our customers," he says. "We were becoming [storage] specialists."

So in February, Berlitz shuttered the doors of its primary data center after engaging a service provider to run its infrastructure from a hosted site in Boston.

While the move may have been seen as passé by some in the IT industry, harkening back to the dot-com era, analysts say there is a new and growing demand for hosted services, especially when it comes to storage. That's because while storage systems are being recognized as strategic, they're also growing out of control.

The change at Berlitz has boosted service while cutting costs. "We were barely covering U.S. operations and couldn't cover global operations," Power says of his IT staff of about 100 workers. "Now we have a much higher level of service than we were ever willing to pay for, at a slightly lower cost."

Berlitz, which franchises more than 500 language learning centers in 60 countries, has completed most of a change from an in-house storage-area network to a service hosted by VeriCenter Inc. in Houston. The move to a service provider saved Berlitz about 10% in total operating costs, but more important, it kept Power from having to open as many as three new data centers to serve growing offices in Europe and Asia. Power was also able to redeploy his IT staff.

Now, he says, VeriCenter has become crucial to the business, storing key data such as Social Security numbers, course materials, grades and financial information. "We entrust the lifeblood of our business to VeriCenter," Power says.

What's Different?

Back in the late 1990s, the majority of storage service providers (SSP) focused on delivering primary storage — or storage that acts as the external disk drives to mission-critical transactional databases — as an outsourced service. One of the proponents of that so-called utility storage model was Waltham, Mass.-based Storage Networks Inc., which spent hundreds of millions of dollars on the highest-end storage arrays for its data centers.

But while the company was able to woo some Fortune 100 customers to store referential data, such as e-mail and files, at off-site facilities, clients

Continued on page 56

Storage: Round 2

Storage service providers, which came and went in the past decade, are back with new services for new needs. **By Lucas Mearian**

SEAN POWER, director of strategic technology at Berlitz International Inc. in Princeton, N.J., saw his data center grow to the point where the majority of his IT workers were supporting storage and servers instead of supporting employees in about 500 field offices. "We were having to build internal resources while not providing services to our customers," he says. "We were becoming [storage] specialists."

So in February, Berlitz shuttered the doors of its primary data center after engaging a service provider to run its infrastructure from a hosted site in Boston.

While the move may have been seen as passé by some in the IT industry, harkening back to the dot-com era, analysts say there is a new and growing demand for hosted services, especially when it comes to storage. That's because while storage systems are being recognized as strategic, they're also growing out of control.

The change at Berlitz has boosted service while cutting costs. "We were barely covering U.S. operations and couldn't cover global operations," Power says of his IT staff of about 100 workers. "Now we have a much higher level of service than we were ever willing to pay for, at a slightly lower cost."

Berlitz, which franchises more than 500 language learning centers in 60 countries, has completed most of a change from an in-house storage-area network to a service hosted by VeriCenter Inc. in Houston. The move to a service provider saved Berlitz about 10% in total operating costs, but more important, it kept Power from having to open as many as three new data centers to serve growing offices in Europe and Asia. Power was also able to redeploy his IT staff.

Now, he says, VeriCenter has become crucial to the business, storing key data such as Social Security numbers, course materials, grades and financial information. "We entrust the lifeblood of our business to VeriCenter," Power says.

What's Different?

Back in the late 1990s, the majority of storage service providers (SSP) focused on delivering primary storage — or storage that acts as the external disk drives to mission-critical transactional databases — as an outsourced service. One of the proponents of that so-called utility storage model was Waltham, Mass.-based Storage Networks Inc., which spent hundreds of millions of dollars on the highest-end storage arrays for its data centers.

But while the company was able to woo some Fortune 100 customers to store referential data, such as e-mail and files, at off-site facilities, clients

Continued on page 56

CHANGING THE LANDSCAPE OF BUSINESS INTELLIGENCE.

[Integrating financial management and BI to create the first Business Performance Management system.]

INTRODUCING HYPERION SYSTEM™ 9

Now you can attain performance visibility and take immediate action to solve business problems with the new Hyperion System 9. Built as a single modular system, Hyperion System 9 increases productivity while reducing risk and TCO. It's straightforward for IT to integrate with database and transaction systems. And it's even simpler for end-users to learn and use. See the launch webcast: **www.hyperion.com/launch**

Hyperion®

VISIBILITY.
PERFORMANCE.
SUCCESS.™

How It's Done

Continued from page 54

weren't willing to hand over primary, mission-critical data to a third-party service provider, according to Dave Russell, an analyst at Gartner Inc. in Stamford, Conn.

In 2002, with sales dropping, Storage Networks, like other pure-play SSPs, tried adding storage management software to its portfolio of products and services, but that move couldn't save it from being forced to shut down in 2003. Other SSPs, such as Storability Software in Southboro, Mass., successfully made the leap from hosted service provider to storage management software vendor.

For pure-play SSPs, Russell says, the problem was simply a lack of trust. While the economics existed to support the SSP model five years ago, companies ultimately weren't willing to allow primary data systems to reside outside their four walls or mission-critical data to be stored on the same box or the one next to that of a potential competitor.

Still, Storage Networks' erstwhile motto, "Delivering the future of data storage," may not have been wrong but simply ill-timed.

Five years ago, when SSPs were at their peak, they were appealing to start-up dot-com and Internet companies that had limited infrastructures and very little cash to invest but needed to get up and running quickly, according to Doug Chandler, an analyst at market research company IDC in Framingham, Mass.

While Chandler says he believes that the future of SSPs is murky, over time more companies will likely become comfortable with the model of hosted storage because they're recognizing that storage is much more of a strategic need than it used to be. And in many cases, companies are adding capacity so rapidly that it outstrips their ability to manage it internally.

The result is that many companies are looking for help at the strategic level, with challenges such as storage architecture and planning, as well as at the tactical level, with tasks like data backup.

Pure-play hosted storage providers such as VeriCenter are emerging again, but they're offering a mix of services, from monitoring storage systems to archiving e-mail and backing up and restoring file systems.

Various Flavors

Over the past two years, major vendors such as IBM, Hewlett-Packard Co. and Iron Mountain Inc. have introduced online storage backup services targeted more at disaster recovery and business continuity. The vendors are able to draw on their vast number of regional data centers to host storage for those purposes.

The services, much like SunGard Data Systems Inc.'s Availability Services, are also being offered by telecommunications companies such as AT&T Corp. and Nippon Telegraph and Telephone Corp.

There are also more than a dozen smaller vendors offering online backup and recovery, including continuous data protection products that can take snapshots of data every time it changes and back that up across the Internet. LiveVault Corp., Asigra Inc., Seale Eight Inc., EVault Inc., IPR International LLC and AmeriVault Corp. are all part of that niche.

Many SSPs today don't even own their own data centers but instead lease space from public data centers or telecommunications providers with room to spare.

Incentra Solutions Inc.'s Managed-Storage International division in Broomfield, Colo., for example, doesn't even lease its own data center space. Instead, it buys the hardware and software, hires the support staff and then wholesales the service to partners, which in turn rebrand it and sell it as a product.

Incentra says it performs 190,000 backup jobs a month and stores 1.4 petabytes of customer data.

"We track storage provisioning, perform reporting and billing, and monitor [service-level agreement] performance," says Tom Sweeney, CEO of Incentra, which was spun off from Storage Technology Corp. in 2000.

Incentra's all-inclusive service offering, which includes management and monitoring of customer data, as well as storage and backup services, costs from $5,000 to $200,000 a month, depending on the amount of data being maintained.

Carlos Santana is senior manager for IT at MMM Healthcare Inc., a small health maintenance organization in Puerto Rico with about 90,000 members. He has been using AmeriVault for three years to back up his company's file servers, e-mail and Oracle and SQL production databases. This helps his company comply with the Health Insurance Portability and Accountability Act's requirement for redundant off-site copies of data and for disaster recovery purposes.

"It's expensive in terms of recurring cost, but it's worth it. If you take into consideration the amount of money you have to invest to do it yourself, it kind of evens out. But it's not cheap. It's a couple thousand dollars a month," says Santana, whose 3TB of data is backed up to Waltham, Mass.-based AmeriVault's data center.

Focus on Security

Santana says he chose an outsourced service because of the capital costs involved in building out an internal architecture to support his company's fast-growing storage needs. "We also don't have a lot of time to get into that business," he says.

Still, Santana says he wasn't persuaded to use the third-party backup provider until the vendor proved its ability to encrypt his data and keep it that way until MMM Healthcare wanted it back. "They have the highest level of security. They don't even know the password to decrypt the data," he says. "They know how much data I have, but [they] can't see it."

AmeriVault says it has more than 500 customers and 2,000 virtual private network connections as well as eight data centers around the U.S. where it hosts storage and other IT services. It says business has grown at least 25% each year since it opened six years ago.

Another online backup provider, LiveVault in Marlboro, Mass., claims that its revenue grew the equivalent of 226% year over year for the third quarter of 2004. Spokesman Jim McManus says the amount of new data the company took on during the past quarter alone exceeded what it projected for the first two years it offered the service. LiveVault claims to manage more than 1 petabyte of data.

But despite the apparent growth in the popularity of SSPs, switching to a service provider doesn't always make an IT manager's life easier. Managing a service provider relationship "does not always reduce the amount of work one has," says Berlitz's Power. "There's still effort to coordinate those services, and it's not insubstantial."

A Storage Sampler

How It's Done

Continued from page 54

weren't willing to hand over primary, mission-critical data to a third-party service provider, according to Dave Russell, an analyst at Gartner Inc. in Stamford, Conn.

In 2002, with sales dropping, Storage Networks, like other pure-play SSPs, tried adding storage management software to its portfolio of products and services, but that move couldn't save it from being forced to shut down in 2003. Other SSPs, such as Storability Software in Southboro, Mass., successfully made the leap from hosted service provider to storage management software vendor.

For pure-play SSPs, Russell says, the problem was simply a lack of trust. While the economics existed to support the SSP model five years ago, companies ultimately weren't willing to allow primary data systems to reside outside their four walls or mission-critical data to be stored on the same box or the one next to that of a potential competitor.

Still, Storage Networks' erstwhile motto, "Delivering the future of data storage," may not have been wrong but simply ill-timed.

Five years ago, when SSPs were at their peak, they were appealing to start-up dot-com and Internet companies that had limited infrastructures and very little cash to invest but needed to get up and running quickly, according to Doug Chandler, an analyst at market research company IDC in Framingham, Mass.

While Chandler says he believes that the future of SSPs is murky, over time more companies will likely become comfortable with the model of hosted storage because they're recognizing that storage is much more of a strategic need than it used to be. And in many cases, companies are adding capacity so rapidly that it outstrips their ability to manage it internally.

The result is that many companies are looking for help at the strategic level, with challenges such as storage architecture and planning, as well as at the tactical level, with tasks like data backup.

Pure-play hosted storage providers such as VeriCenter are emerging again, but they're offering a mix of services, from monitoring storage systems to archiving e-mail and backing up and restoring file systems.

Various Flavors

Over the past two years, major vendors such as IBM, Hewlett-Packard Co. and Iron Mountain Inc. have introduced online storage backup services targeted more at disaster recovery and business continuity. The vendors are able to draw on their vast number of regional data centers to host storage for those purposes.

The services, much like SunGard Data Systems Inc.'s Availability Services, are also being offered by telecommunications companies such as AT&T Corp. and Nippon Telegraph and Telephone Corp.

There are also more than a dozen smaller vendors offering online backup and recovery, including continuous data protection products that can take snapshots of data every time it changes and back that up across the Internet. LiveVault Corp., Asigra Inc., Scale Eight Inc., EVault Inc., IPR International LLC and AmeriVault Corp. are all part of that niche.

Many SSPs today don't even own their own data centers but instead lease space from public data centers or telecommunications providers with room to spare.

Incentra Solutions Inc.'s Managed-Storage International division in Broomfield, Colo., for example, doesn't even lease its own data center space. Instead, it buys the hardware and software, hires the support staff and then wholesales the service to partners, which in turn rebrand it and sell it as a product.

Incentra says it performs 190,000 backup jobs a month and stores 1.4 petabytes of customer data.

"We track storage provisioning, perform reporting and billing, and monitor [service-level agreement] performance," says Tom Sweeney, CEO of Incentra, which was spun off from Storage Technology Corp. in 2000.

Incentra's all-inclusive service offering, which includes management and monitoring of customer data, as well as storage and backup services, costs from $5,000 to $200,000 a month, depending on the amount of data being maintained.

Carlos Santana is senior manager for IT at MMM Healthcare Inc., a small health maintenance organization in Puerto Rico with about 90,000 members. He has been using AmeriVault for three years to back up his company's file servers, e-mail and Oracle and SQL production databases. This helps his company comply with the Health Insurance Portability and Accountability Act's requirement for redundant off-site copies of data and for disaster recovery purposes.

"Its expensive in terms of recurring cost, but it's worth it. If you take into consideration the amount of money you have to invest to do it yourself, it kind of evens out. But it's not cheap. It's a couple thousand dollars a month," says Santana, whose 3TB of data is backed up to Waltham, Mass.-based AmeriVault's data center.

Focus on Security

Santana says he chose an outsourced service because of the capital costs involved in building out an internal architecture to support his company's fast-growing storage needs. "We also don't have a lot of time to get into that business," he says.

Still, Santana says he wasn't persuaded to use the third-party backup provider until the vendor proved its ability to encrypt his data and keep it that way until MMM Healthcare wanted it back. "They have the highest level of security. They don't even know the password to decrypt the data," he says. "They know how much data I have, but [they] can't see it."

AmeriVault says it has more than 500 customers and 2,000 virtual private network connections as well as eight data centers around the U.S. where it hosts storage and other IT services. It says business has grown at least 25% each year since it opened six years ago.

Another online backup provider, LiveVault in Marlboro, Mass., claims that its revenue grew the equivalent of 226% year over year for the third quarter of 2004. Spokesman Jim McManus says the amount of new data the company took on during the past quarter alone exceeded what it projected for the first two years it offered the service. LiveVault claims to manage more than 1 petabyte of data.

But despite the apparent growth in the popularity of SSPs, switching to a service provider doesn't always make an IT manager's life easier. Managing a service provider relationship "does not always reduce the amount of work one has," says Berlitz's Power. "There's still effort to coordinate those services, and it's not insubstantial."

A Storage Sampler

Congratulations Award Recipients!

Computerworld's Business Intelligence Perspectives proudly announces the results of the second "Best Practices in Business Intelligence" Awards Program. This program honors IT user "best practice" case studies selected from a field of qualified finalists.

COMPUTERWORLD BUSINESS INTELLIGENCE PERSPECTIVES
Best Practices IN BUSINESS INTELLIGENCE
AWARDS PROGRAM

AWARDS PROGRAM EXCLUSIVELY SPONSORED BY
ORACLE

Award Recipients in each of the following categories were recognized during an awards ceremony at Business Intelligence Perspectives in Scottsdale, Arizona, on September 28th:

Creating a BI Vision and Strategies for Improved ROI

- **Bacardi U.S.A. Inc., Miami, Florida**
- **Hospital Corporation of America (HCA, Inc.), Nashville, Tennessee**

Honorable Mentions: Auto Warehousing Company, Tacoma, Washington
PREMIER Bankcard, Inc., Sioux Falls, South Dakota
Shangai Stock Exchange, Shanghai, China

Data Visualization, Prediction and Presentation by Leveraging Customized Solutions

- **APEX Management Group, Princeton, New Jersey**
- **JPMorgan Chase, New York, New York**

Honorable Mentions: Calpine Corporation, Houston, Texas
Eastman Chemical Company, Kingsport, Tennessee
IBM, Southbury, Connecticut

Information Retrieval and Reporting by Leveraging Off-the-Shelf Enterprise Software

- **Communications Electronics-Life Cycle Management Command Acquisition Center, Fort Monmouth, New Jersey**
- **Intermountain Health Care, Salt Lake City, Utah**

Honorable Mentions: Briggs & Stratton, Wauwatosa, Wisconsin
CHEP, Orlando, Florida
County of Santa Clara, California, San Jose, California

Managing and Enhancing BI Applications and Infrastructure

- **AT&T, Middletown, New Jersey**
- **University of Minnesota, Minneapolis, Minnesota**

Honorable Mentions: IBM, Somers, New York
NACCO Materials Handling Group (NMHG), Greenville, North Carolina
United States Postal Service, Washington D.C.

Planning, Designing and Building the BI Infrastructure

- **Amgen, Inc., Thousand Oaks, California**
- **Export Development Canada (EDC), Ottawa, Canada**

Honorable Mentions: Commission Junction, Santa Barbara, California
Nielsen Media Research, Oldsmar, Florida
Pfizer Health Solutions, Inc., Santa Monica, California

MARK YOUR CALENDAR The third annual Business Intelligence Perspectives Conference is September 25-27, 2006 at the JW Marriott Desert Springs Resort in Palm Desert, California.

EXEC TRACK

Blue Shield of Calif. Appoints MacKinnon

San Francisco-based Blue Shield of California has named **ELINOR MacKINNON** senior vice president and CIO. MacKinnon joined Blue Shield in 2004 as vice president of applications. Previously, she was interim CIO at Chiron Corp. and has worked in senior technology positions at Charles Schwab & Co. and SHL Systemhouse Inc.

TravelClick Chooses Hinkel as New CIO

TODD HINKEL has been named CIO at TravelClick Inc., a provider of hotel e-commerce systems in Schaumburg, Ill. Hinkel had been co-founder and president of Customer Evolutions Inc., a data integration services provider. Previously, he was vice president of customer management solutions at Tanning Technology Corp.

Lines to Serve as CSO at TransUnion

TransUnion LLC, a Chicago-based information provider, announced that **MICHAEL LINES** has joined the company as chief security officer. He will report to CIO Len Lombardo. Previously, Lines was CSO at Fair Isaac Corp. and CIO at Narex Corp.

Kerns to Head IT At BostonCoach

BostonCoach, a Boston-based provider of ground transportation services, announced that it has named **THOMAS J. KEARNS** CIO. Previously, Kearns was vice president of IT at Reebok International.

Coggeshall Named CTO at ID Analytics

ID Analytics Inc., an identity risk management company in San Diego, has appointed **STEPHEN COGGESHALL** chief technology officer. He has worked closely with the company since its inception in 2002. Prior to joining ID Analytics, Coggeshall was an executive director at Morgan Stanley.

BART PERKINS

Penny Wise And Pound Foolish

IN RECENT YEARS, CIOs have been under intense pressure to reduce costs in any way possible. Most have focused their efforts on standardizing their infrastructures and reducing the number of vendors in their supplier portfolios.

Standardization has decreased costs while providing improved flexibility and facilitating scalability. However, it has also resulted in significant software-industry consolidation over the past several years. In fact, according to a recent report by Saugatuck Technology, the Big Four (IBM's software group, SAP, Oracle and Microsoft) now account for 65% of worldwide software-industry revenues and more than 88% nf that industry's profits. It's time to step back and consider the long-term ramifications.

BART PERKINS is managing partner at Louisville, Ky.-based Leverage Partners Inc., which helps organizations invest well in IT. He was previously CIO at Tricon Global Restaurants Inc. and Dole Food Co. Contact him at Bart@LeveragePartners.com.

Although standardization efforts have indeed enabled CIOs to meet their companies' demands to reduce costs, many are worried about the undesirable aspects of industry consolidation.

Over time, all-purpose software packages tend to become bloated with features that many users don't want or need. Industries dominated by a few large companies are typically neither innovative nor customer-focused. Moreover, without healthy competition, prices invariably increase while service declines.

Many CIOs are acting to address these concerns, and so can you. Here's what you can do:

■ **Keep sales competition alive.** Although it makes sense to designate preferred vendors for certain products and services, you also need a mechanism to ensure that every vendor delivers tbe best mix of price and service.

Effective techniques include auditing a vendor's charges, benchmarking industry pricing and periudically inviting other vendors to bid. Demonstrating that you are in contact with competitors helps keep the sales team highly motivated to provide good service. Simply using a competitor's mug can send a subtle message.

■ **Migrate to open standards.** Virtually all IT organizations are designing their architectures around open standards. Admittedly, it may take years for established companies with large legacy technology bases to complete the actual migration to the desired architecture. But meanwhile, some major organizations, including the U.S. Navy, are taking proactive measures. They are encouraging their key vendors to also migrate their technology to open standards. In cases where no such standards exist, some of these organizations are working with their vendors to create the standards.

Other organizations are standardizing on browsers to enable a variety of hardware and software to use an application.

■ **Look beyond the obvious suppliers.** Take time to investigate multiple supplier options. For example, second-tier ERP packages can work well for smaller business units. On the desktop, StarOffice and OpenOffice read and write Microsoft Office files.

In addition, look for new entrants selling software. According to India's National Association of Software and Service Companies, software sales from Indian companies increased 30% last year to $3 billion. Currently, Tata Group sells software packages for the banking, insurance, accounting, manufacturing and health care industries. It stands to reason that other systems integration firms (e.g., Syntel, Cognizant and Wipro) will also translate their application development expertise into industry-specific software packages.

China's prime minister recently visited India, where tbe two nations discussed working together to achieve world leadership in the IT industry. Down the road, expect to see many alternative products from these countries and other nontraditional providers.

■ **Pursue open-source options.** The open-source movement is gaining support on multiple fronts. Some venture capitalists believe that open-source-based companies will figure prominently in the future. For example, Matt Miller, a venture capitalist at WaldenVC, is interested in funding companies with open-source suites to automate problem management, change control, network management and other internal IT functions.

State and local government agencies are also getting on the bandwagon. Kansas, Pennsylvania, Massachusetts, Utah and other states have formed the Government Open Code Collaborative. Its purpose is to share computer code developed for and by government entities, at no cost.

Consolidation in the U.S. and Western European software industries will continue, as Oracle's acquisition of Siebel shows. As you plan your software purchases, consider the long-term implications. A high concentration of revenues and profits in the Big Four will ultimately result in less innovation, less competition, bigger packages and higher prices. So be careful about how mucb leverage you give the software giants. Consider your software alternatives now, or Monopoly will be more tban just a board game. ▸

WANT OUR OPINION?

For more columns and links to our archives go to: **www.computerworld.com/columns**

EXEC TRACK

Blue Shield of Calif. Appoints MacKinnon

San Francisco-based Blue Shield of California has named ELINOR MacKINNON senior vice president and CIO. MacKinnon joined Blue Shield in 2004 as vice president of applications. Previously, she was interim CIO at Chiron Corp. and has worked in senior technology positions at Charles Schwab & Co. and SHL Systemhouse Inc.

TravelClick Chooses Hinkel as New CIO

TODD HINKEL has been named CIO at TravelClick Inc., a provider of hotel e-commerce systems in Schaumburg, Ill. Hinkel had been co-founder and president of Customer Evolutions Inc., a data integration services provider. Previously, he was vice president of customer management solutions at Tanning Technology Corp.

Lines to Serve as CSO at TransUnion

TransUnion LLC, a Chicago-based information provider, announced that MICHAEL LINES has joined the company as chief security officer. He will report to CIO Len Lombardo. Previously, Lines was CSO at Fair Isaac Corp. and CIO at Narex Corp.

Kerns to Head IT At BostonCoach

BostonCoach, a Boston-based provider of ground transportation services, announced that it has named THOMAS J. KEARNS CIO. Previously, Kearns was vice president of IT at Reebok International.

Coggeshall Named CTO at ID Analytics

ID Analytics Inc., an identity risk management company in San Diego, has appointed STEPHEN COGGESHALL chief technology officer. He has worked closely with the company since its inception in 2002. Prior to joining ID Analytics, Coggeshall was an executive director at Morgan Stanley.

BART PERKINS

Penny Wise And Pound Foolish

IN RECENT YEARS, CIOs have been under intense pressure to reduce costs in any way possible. Most have focused their efforts on standardizing their infrastructures and reducing the number of vendors in their supplier portfolios.

Standardization has decreased costs while providing improved flexibility and facilitating scalability. However, it has also resulted in significant software-industry consolidation over the past several years. In fact, according to a recent report by Saugatuck Technology, the Big Four (IBM's software group, SAP, Oracle and Microsoft) now account for 65% of worldwide software-industry revenues and more than 88% of that industry's profits. It's time to step back and consider the long-term ramifications.

Although standardization efforts have indeed enabled CIOs to meet their companies' demands to reduce costs, many are worried about the undesirable aspects of industry consolidation.

Over time, all-purpose software packages tend to become bloated with features that many users don't want or need. Industries dominated by a few large companies are typically neither innovative nor customer-focused. Moreover, without healthy competition, prices invariably increase while service declines.

Many CIOs are acting to address these concerns, and so can you. Here's what you can do:

■ **Keep sales competition alive.** Although it makes sense to designate preferred vendors for certain products and services, you also need a mechanism to ensure that every vendor delivers the best mix of price and service.

Effective techniques include auditing a vendor's charges, benchmarking industry pricing and periodically inviting other vendors to bid. Demonstrating that you are in contact with competitors helps keep the sales team highly motivated to provide good service. Simply using a competitor's mug can send a subtle message.

■ **Migrate to open standards.** Virtually all IT organizations are designing their architectures around open standards. Admittedly, it may take years for established companies with large legacy technology bases to complete the actual migration to the desired architecture. But meanwhile, some major organizations, including the U.S. Navy, are taking proactive measures. They are encouraging their key vendors to also migrate their technology to open standards. In cases where no such standards exist, some of these organizations are working with their vendors to create the standards.

Other organizations are standardizing on browsers to enable a variety of hardware and software to use an application.

■ **Look beyond the obvious suppliers.** Take time to investigate multiple supplier options. For example, second-tier ERP packages can work well for smaller business units. On the desktop, StarOffice and OpenOffice read and write Microsoft Office files.

In addition, look for new entrants selling software. According to India's National Association of Software and Service Companies, software sales from Indian companies increased 30% last year to $3 billion. Currently, Tata Group sells software packages for the banking, insurance, accounting, manufacturing and health care industries. It stands to reason that other systems integration firms (e.g., Syntel, Cognizant and Wipro) will also translate their application development expertise into industry-specific software packages.

China's prime minister recently visited India, where the two nations discussed working together to achieve world leadership in the IT industry. Down the road, expect to see many alternative products from these countries and other nontraditional providers.

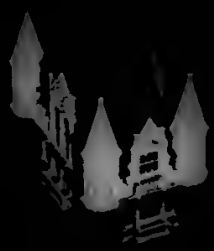
■ **Pursue open-source options.** The open-source movement is gaining support on multiple fronts. Some venture capitalists believe that open-source-based companies will figure prominently in the future. For example, Matt Miller, a venture capitalist at WaldenVC, is interested in funding companies with open-source suites to automate problem management, change control, network management and other internal IT functions.

State and local government agencies are also getting on the bandwagon. Kansas, Pennsylvania, Massachusetts, Utah and other states have formed the Government Open Code Collaborative. Its purpose is to share computer code developed for and by government entities, at no cost.

Consolidation in the U.S. and Western European software industries will continue, as Oracle's acquisition of Siebel shows. As you plan your software purchases, consider the long-term implications. A high concentration of revenues and profits in the Big Four will ultimately result in less innovation, less competition, bigger packages and higher prices. So be careful about how much leverage you give the software giants. Consider your software alternatives now, or Monopoly will be more than just a board game. ▸

WANT OUR OPINION?

For more columns and links to our archives go to: www.computerworld.com/columns



© 2005 Global Crossing Limited and Global Crossing Network Security Limited. All rights reserved.

THE NEW GLOBAL VILLAGE.

COURTESY: THE WORLD'S LARGEST, WHOLLY-OWNED, CONVERGED, GLOBAL IP NETWORK.

"Based on the 2005 Yankee Group Global Network Strategies Survey, U.S.-based enterprise users of global data and IP services have ranked Global Crossing number one in service reliability and price — demonstrating Global Crossing's price/performance capabilities, delivering the value which enterprises are seeking from a global service provider."

Paris Burstyn, Telecom Strategies North America, The Yankee Group

---

Reserve your place at the absolute center of a new, instantly accessible world of frictionless commerce. A world we pioneered. Over a single IP connection, all your business applications can be seamlessly converged and totally secured over Global Crossing IP VPN, VoIP, iVideoconferencing™ services. Over a single IP connection, you are moments away from your offices, your sales staff, your partners and anywhere in the world managed by engineers and support staff who understand what customers need. And you can have this new, accessible world without changing a thing in the infrastructure you have in place now. Sound too perfect to be true? Ask the 40% of the FORTUNE 500® companies we're doing business with today. The new global village. It's time you moved in. For more detailed information, point your browser to globalcrossing.com.

Global Crossing®

One planet. One network.™ Infinite possibilities.

KNOWLEDGE CENTER OUTSOURCING

11.14.05

Data Diligence
It takes a skilled lawyer to skirt danger zones in a managed service provider agreement. PAGE 70

Five Questions For Your MSP
And other tips for helping your company's business users negotiate a contract. PAGE 72

The New MSPs
Value-added resellers had better shift to the MSP model of doing business or they may not be in business much longer, says columnist Mark Hall. PAGE 74

ASPs, Take Two

Application service providers are back for a second act.

EDITOR'S NOTE

IN MID-2000, Gartner predicted that 60% of the more than 700 application service providers then in existence would fail by the end of 2002. The prediction was viewed as too pessimistic at the time, but as it turned out — after the dot-com crash — the failure rate was more like 90%. It was an "almost absurd imbalance between supply and demand," Gartner noted.

So it's no surprise that the surviving vendors (and new ones) don't care much for the ASP moniker. That's why the buzzword-makers have come up with new terms to replace ASP, like "software as a service," on-demand software, hosted applications and managed service provider.

Some things have changed since the dot-com days: The reincarnated ASPs have taken on more roles and more customization than the traditional ASP model allowed. But some things haven't changed, like the reasons why businesses are intrigued by the ASP concept. Users are attracted to the promise of reducing costs, gaining access to an application much faster than they could via internal development, and freeing the IT staff to work on more strategic tasks.

For these reasons, Gartner's latest research shows that almost one-third of U.S. companies currently use an ASP and another 22% plan to do so in the next two years.

Still, this is far from a mature market, so users need to tread carefully. Our special report will help you assess the pros and cons, watch for legal land mines and grill the ASP salesman who's knocking on your door.

Mitch Betts is executive editor at Computerworld. *Contact him at mitch_betts@computerworld.com.*

MSPs: The New Hosts

Managed service providers add customization to the old ASP model. **By Stacy Collett**

In 2002, Black & Veatch Corp. signed on with an outside service provider to run and maintain its procurement software. But as business grew at the engineering consulting and construction firm, so did the demands of its partners and clients. They wanted access to documents that could help them with the procurement process without having to pass through B&V's firewall. They also wanted to collaborate with one another on projects via the Internet — a big request that's not usually handled by a traditional application service provider. But it's one of the many types of added services offered by the next generation of service provider — the MSP, or managed service provider.

MSPs have emerged over the past five years as an alternative to traditional application service providers.

Because the roles of ASPs and MSPs overlap, analysts differ in how they distinguish between the two categories, but most agree that with an MSP, the commodity-based model of the ASP has been replaced by an organic partnership.

The Icing

Traditional ASPs host standard applications with little customization on their servers for a monthly fee per user. Some might offer limited extra services. An MSP will offer customized applications and throw in business processes, as well as engineering, security, maintenance, and monitoring and reporting of network servers. In a fully outsourced network management arrangement, an MSP can manage advanced features like IP telephony, messaging, call centers and virtual private networks.

"Hosting Web sites is literally a commodity on the market today," says Michael Lamb, director of e-business and Internet service at Overland Park, Kan.-based Black & Veatch. "It's very difficult to find a company that understands our business, what our true business requirements are and really tries to help us fix things with our clients."

LoadSpring Solutions Inc. in Lawrence, Mass., was able to grant B&V's partners and vendors access to designated procurement documents, as well as host a separate Internet-based collaborative environment for project management where participants can securely share information, schedules and designs. "We can collaborate with those clients without opening the security door. That's really where they're providing the most valuable service for us," Lamb adds.

Continued on page 64

DON'T LET SPYWARE SABOTAGE YOUR ENTERPRISE.

The next threat is no threat with Trend Micro.

Expose and eradicate spyware with Trend Micro's Enterprise-class, multi-level, anti-spyware solutions. They're the only solutions that block and clean at the gateway—the most effective point of control. Trend Micro. #1 global leader at the gateway and industry pioneer. Whether it's a virus, worm, spyware, or spam, we've got you covered.

For a FREE evaluation and IDC whitepaper,
go to www.trendmicro.com/spyware

©2005 Trend Micro Inc. All rights reserved. Trend Micro and the t-ball logo are trademarks or registered trademarks of Trend Micro Inc. All other company and/or product names may be trademarks or registered trademarks of their owners.

TREND MICRO™

What They Do

Application service provider. A company that provides software functionality over the Internet or private network for a fee, usually based on the number of software users. In theory, subscribing to an ASP allows a company to avoid purchasing, installing, supporting and upgrading expensive software applications, but the software has little customization.

Managed service provider. An MSP provides delivery and management of network-based services, applications and equipment for a fee. MSPs can be hosting companies or access providers that offer services such as fully outsourced network management arrangements.

Most of these services can be performed from outside a company's internal network with Internet security for applications and content provided.

Clients might pay a premium monthly, annual or per-minute fee for an MSP's services, but the risk mitigation may be worth the price.

STACY COLLETT

Continued from page 62

Business growth, demands for custom systems, concerns about security, budget constraints and limited workforces are among the many reasons why companies are becoming more interested in MSPs.

American Airlines Inc., for instance, chose San Francisco-based Totality Corp. to host its Web site, contact center and voice self-service systems after realizing it would need to hire teams of elite engineers to manage complex new technologies that recognize voice commands or automatically forward flight information to wireless devices. What's more, technical issues were becoming customer experience issues, and the slow advancement of online systems began affecting business relationships with customers.

"We needed the ability to manage not only our infrastructure, but also our customer-facing processes in an integrated fashion," Scott Hyden, American's managing director of interactive marketing, wrote on Totality's Web site.

Like American Airlines, many companies "needed to step back and really do some engineering of how the whole site is put together and how the servers are put together," explains Henry Howard, project director at TPI Inc., a Dallas-based outsourcing consultancy. Concern about fail-over issues and hackers added to their dilemma. MSPs sprung up offering value-added services to address those concerns.

So when does an application or process warrant the help of an MSP?

"Some things lend themselves well to the ASP model," says Adam Braunstein, an analyst at Robert Frances Group Inc., an IT business advisory firm in Westport, Conn. If a midsize company's customer relationship management application requires a tweak to the business process flow, an ASP can work.

"But if you had what you thought was super [business] process flow ... more often than not that couldn't be mapped" by an ASP, he adds. "While some sophisticated ASPs exist today, they won't offer the comprehensive services that an MSP provides, generally to top-tier client sites."

"I see some incremental growth in certain types of MSP offerings," says Art Schoeller, an analyst at Boston-based Yankee Group Research Inc. "Hosted voice self-service, CRM software, call center technology, hosted workforce management — each slice has its own dynamic in terms of how it's evolving." But even so, he says, "it's more single-digit change of market share."

Companies are becoming interested in managed virtual private networks as their needs for nationwide access and protocol management grow, Schoeller says. Security as a managed service, such as virus protection on VPNs, is also attractive "because it's a hot topic" and qualified staffers are hard to find, he adds. Hosted contact center and voice self-service systems are also gaining strength as companies find that these technologies require specialized staff.

Pay More, Get More

Yes, companies are going to pay a premium for MSP services, but the risk mitigation might be worth it.

Black & Veatch won't divulge the monthly and annual fees paid to its MSP, but Lamb says the price beats the alternative. "Looking at what it would take to train your people and buy the internal system, that's the amount of cost we were trying to avoid. They can provide it more readily and cheaply than we could do ourselves," he says.

When it comes to hosting complex customer Web sites, MSPs provide insurance and confidence in the infrastructure.

"The major airlines and electronics retailers with a major presence on the Web will tell you — if that Web site takes a hit, particularly during a holiday season, you're losing huge amounts of money. They just can't do that," says TPI's Howard. What's more, "these are cream-of-the-crop engineers," he adds. "You're going to pay a premium."

The scalability alone that an MSP can provide is worth the price, says David O'Connell, a senior analyst at Nucleus Research Inc. in Wellesley, Mass. Insurance companies, for instance, have hundreds of claims adjusters in the Gulf Coast area taking care of clients affected by hurricanes Katrina and Rita. Those companies' systems need the scalability to handle the rush of activity.

"You don't want to be the company that's getting written up in *The Wall Street Journal* because your claims adjusters are walking around Louisiana with handhelds that aren't working. They should be transmitting to the home office," O'Connell says. Worse than that, companies have to be concerned about their reputations on the ground, which can be ruined if "your agents weren't able to cut checks off these handheld systems that were supported by the back office."

> It's very difficult to find a company that understands our business, what our true business requirements are and really tries to help us fix things with our clients.

How can they afford it? Some of these MSPs have cut sweet deals with clients to get their logos on major retailers' Web sites, Howard says. For others, it's simply a matter of deciding where the expense will be posted on the corporate balance sheet.

"I advise folks to look at managed services vs. equipment," says Yankee Group's Schoeller. "How much of the asset do you want on your books? How much of the staff do you want on your books? It's still on your books, but it's just another line item on your P&L."

Collett is a Computerworld contributing writer. Contact her at Stcollett@aol.com.

The Making of an MSP

THE MSP CONCEPT was born early this decade when large companies began to realize that it takes more than just adding servers to keep complex Web sites and applications up and running smoothly. Soon, names like Loudcloud, Totality, Nucleo, SilverBack and ManageIT dotted the MSP landscape.

An ASP backlash also contributed to the emergence of the next-generation MSPs, says Adam Braunstein, an analyst at Robert Frances Group, as weak spots in the ASP model became apparent.

"A generic piece of software can't work for every company in every industry with no modifications or extra functionality built in to serve the industry's needs," he says. "They needed customization."

In 2003, a survey of 200 corporate IT and business decision-makers by Boston-based Summit Strategies Inc. showed that 48% of midsize and large businesses were using managed hosting or managed services, and another 19% expected to adopt those offerings by 2005.

Yet some early MSPs failed. "Some of them just ran out of money before they became attached to a very large client. A lot of it is just the luck of the draw," Howard says.

Early on, MSPs struggled to tangibly demonstrate how the service would save customers money over in-house management. But today, with more complex Web sites and applications, plus the ever-present threat of system crashes — and the ramifications of crashes that do occur — business is picking up.

Today, MSPs are seeing single-digit gains in market share, especially in specialized pockets such as VPN, security and hosted self-service voice applications.

– STACY COLLETT

What They Do

Application service provider. A company that provides software functionality over the Internet or private network for a fee, usually based on the number of software users. In theory, subscribing to an ASP allows a company to avoid purchasing, installing, supporting and upgrading expensive software applications, but the software has little customization.

Managed service provider. An MSP provides delivery and management of network-based services, applications and equipment for a fee. MSPs can be hosting companies or access providers that offer services such as fully outsourced network management arrangements.

Most of these services can be performed from outside a company's internal network with Internet security for applications and content provided.

Clients might pay a premium monthly, annual or per-minute fee for an MSP's services, but the risk mitigation may be worth the price.

– STACY COLLETT

Continued from page 62

Business growth, demands for custom systems, concerns about security, budget constraints and limited workforces are among the many reasons why companies are becoming more interested in MSPs.

American Airlines Inc., for instance, chose San Francisco-based Totality Corp. to host its Web site, contact center and voice self-service systems after realizing it would need to hire teams of elite engineers to manage complex new technologies that recognize voice commands or automatically forward flight information to wireless devices. What's more, technical issues were becoming customer experience issues, and the slow advancement of online systems began affecting business relationships with customers.

"We needed the ability to manage not only our infrastructure, but also our customer-facing processes in an integrated fashion," Scott Hyden, American's managing director of interactive marketing, wrote on Totality's Web site.

Like American Airlines, many companies "needed to step back and really do some engineering of how the whole site is put together and how the servers are put together," explains Henry Howard, project director at TPI Inc., a Dallas-based outsourcing consultancy. Concern about fail-over issues and hackers added to their dilemma. MSPs sprung up offering value-added services to address those concerns.

So when does an application or process warrant the help of an MSP?

"Some things lend themselves well to the ASP model," says Adam Braunstein, an analyst at Robert Frances Group Inc., an IT business advisory firm in Westport, Conn. If a midsize company's customer relationship management application requires a tweak to the business process flow, an ASP can work.

"But if you had what you thought was super [business] process flow ... more often than not that couldn't be mapped" by an ASP, he adds. "While some sophisticated ASPs exist today, they won't offer the comprehensive services that an MSP provides, generally to top-tier client sites."

"I see some incremental growth in certain types of MSP offerings," says Art Schoeller, an analyst at Boston-based Yankee Group Research Inc. "Hosted voice self-service, CRM software, call center technology, hosted workforce management — each slice has its own dynamic in terms of how it's evolving." But even so, he says, "it's more single-digit change of market share."

Companies are becoming interested in managed virtual private networks as their needs for nationwide access and protocol management grow, Schoeller says. Security as a managed service, such as virus protection on VPNs, is also attractive "because it's a hot topic" and qualified staffers are hard to find, he adds. Hosted contact center and voice self-service systems are also gaining strength as companies find that these technologies require specialized staff.

Pay More, Get More

Yes, companies are going to pay a premium for MSP services, but the risk mitigation might be worth it.

Black & Veatch won't divulge the monthly and annual fees paid to its MSP, but Lamb says the price beats the alternative. "Looking at what it would take to train your people and buy the internal system, that's the amount of cost we were trying to avoid. They can provide it more readily and cheaply than we could do ourselves," he says.

When it comes to hosting complex customer Web sites, MSPs provide insurance and confidence in the infrastructure.

"The major airlines and electronics retailers with a major presence on the Web will tell you — if that Web site takes a hit, particularly during a holiday season, you're losing huge amounts of money. They just can't do that," says TPI's Howard. What's more, "these are cream-of-the-crop engineers," he adds. "You're going to pay a premium."

The scalability alone that an MSP can provide is worth the price, says David O'Connell, a senior analyst at Nucleus Research Inc. in Wellesley, Mass. Insurance companies, for instance, have hundreds of claims adjusters in the Gulf Coast area taking care of clients affected by hurricanes Katrina and Rita. Those companies' systems need the scalability to handle the rush of activity.

"You don't want to be the company that's getting written up in *The Wall Street Journal* because your claims adjusters are walking around Louisiana with handhelds that aren't working. They should be transmitting to the home office," O'Connell says. Worse than that, companies have to be concerned about their reputations on the ground, which can be ruined if "your agents weren't able to cut checks off these handheld systems that were supported by the back office."

> It's very difficult to find a company that understands our business, what our true business requirements are and really tries to help us fix things with our clients.

How can they afford it? Some of these MSPs have cut sweet deals with clients to get their logos on major retailers' Web sites, Howard says. For others, it's simply a matter of deciding where the expense will be posted on the corporate balance sheet.

"I advise folks to look at managed services vs. equipment," says Yankee Group's Schoeller. "How much of the asset do you want on your books? How much of the staff do you want on your books? It's still on your books, but it's just another line item on your P&L."

Collett is a Computerworld contributing writer. Contact her at Stcollett@aol.com.

The Making of an MSP

Introducing Cisco plus.

Plus open architecture. Plus intelligence that optimizes applications. Plus automatic core-to-edge security. Plus VoIP on your existing infrastructure. Minus the forklift. Minus the lock-in. Come see how 3Com® can make any network more secure, more intelligent, more plus.

Cisco Systems, Inc. is not affiliated or associated with nor does it endorse the products or services of 3Com Corporation. Whoa! Big surprise. So yes, we do compete with Cisco. But we also co-exist with them as an overlay to your current network.

security
VoIP
wireless
switching
routing
services

3com.com/AdvanceTheNetwork

Copyright © 2005 3Com Corporation. All rights reserved. 3Com and the 3Com logo are registered trademarks of 3Com Corporation. All other company and product names may be trademarks of their respective companies.

TECHNOLOGY THAT GETS YOU "EVERYTHING'S

IBM eServer™ xSeries®

Affordable reliable, easy to manage eServer xSeries with Intel® Xeon™ Processors

IBM eServer **xSeries 226 Express**

An entry-level 2-way server that offers the reliability and performance needed for day-to-day computing. Easy to set up and deploy, with access to all major system components.

System features

- Up to two Intel® Xeon™ Processors 3GHz/2MB
- Two-way tower with rack capability
- Up to 6 hot-swappable SCSI hard disk drives
- Integrated RAID 0,1
- Limited warranty: up to 3 years on-site[3]

From **$1,639**[4•]
(Other configurations as low as $1,229)

IBM Financing Advantage
Only **$46** per month[5]

IBM eServer **xSeries 346 Express**

Help maximize performance and improve availability in a rack dense environment with Xtended Design Architecture.™ Includes Calibrated Vectored Cooling, an IBM innovation that helps increase uptime.

System features

- Up to two Intel® Xeon™ Processors 3GHz/2MB
- Two-way 2U rack server
- Up to 16GB DDR2 memory using 8 DIMM slots with enhanced memory
- Limited warranty 3 years on-site[3]

From **$3,315**[4•]
(Other configurations as low as $2,219)

IBM Financing Advantage
Only **$93** per month[5]

IBM eServer **xSeries 260 Express**

IBM's newest third-generation Enterprise X-Architecture® server. Designed for companies looking for database, e-mail, Web/e-commerce or consolidated application serving.

System features

- Up to four 64-bit Intel® Xeon™ Processors MP, up to 3.66GHz
- Four-way tower or 7U rack capability
- Up to 3.6TB hot-sweppeble SAS (serial attach SCSI) hard disk storage
- Up to 64GB of memory with advanced memory protection
- Limited warranty. 3 years on-site[3]

From **$5,399**[4•]
(Other configurations as low as $4,599)

IBM Financing Advantage
Only **$151** per month[5]

IBM eServer BladeCenter®

Flexible and easy to use

IBM eServer **BladeCenter HS20 Express**

Offers extreme flexibility and scalability, plus it helps to consolidate and simplify your infrastructure. Helps reduce power consumption and save valuable floor space.

System features

- Up to two Intel® Xeon™ Processors 3.20GHz/2MB
- Up to 14 blades per chassis
- Supports both 32- and 64-bit applications
- IBM Director[2]
- Limited warranty 3 years on-site[3]

From **$2,899**[4•]
(Other configurations as low as $1,669)

IBM Financing Advantage
Only **$81** per month[5]

IBM TotalStorage® Simplify storage management to improve productivity

IBM TotalStorage **DS300 Express**

This entry-level, cost-effective iSCSI host-attached storage system utilizes your existing network infrastructure to deliver advanced functionality. Provides an exceptional SAN storage solution with xSeries servers for e-mail/file/print.

System features

- 3U rack mount entry-level with two controllers
- Support for up to 14 Ultra320 SCSI disk drives
- Starts at 584GB / scales to 4.2TB[6]
- Limited warranty: 1 year on-site[3]

From **$6,455**[4•]
(Other configurations as low as $2,995)

IBM Financing Advantage
Only **$180** per month[5]

*All prices are IBM's estimated retail selling prices as of September 13, 2005. Prices may vary according to configuration. Resellers set their own prices, so reseller prices to end users may vary. Products are subject to availability. This document was developed for offerings in the United States. IBM may not offer the products, features, or services discussed in this document in other countries. 1. IBM Director is not available on TotalStorage products. 2. IBM Director must be installed. Products included in IBM Express Servers and Storage may also be purchased separately. 3. Telephone support may be subject to additional charges. For on-site labor, IBM will attempt to diagnose and resolve the problem remotely before sending a technician. On-site warranty is available only for selected components. 4. Prices subject to change without notice. Starting price may not include a hard drive, operating system or other features. Contact your IBM representative or IBM Business Partner for the most current pricing in your geography. 5. IBM Global Financing offerings are provided through IBM

USED TO SAYING: UNDER CONTROL."

IBM Express Servers and Storage™ for mid-sized business.

Know an I.T. person who doesn't like to hear that "everything's under control"? We don't. That's why we offer an innovative management tool called IBM Director that can alert your I.T. people to potential problems up to 48 hours in advance!

And our Calibrated Vectored Cooling on select xSeries® servers helps cool your systems more efficiently. Packing more servers into a single rack. Helping to save space, energy, money.

With IBM Express, innovation comes standard. That's true for servers, storage and printers. Your local IBM Business Partner can tell you more. And remember, you can keep your technology current while helping to reduce costs – through IBM Global Financing.

Excited? No need to control yourself. Get started today.

Save time. Save costs. Save the day! (Optimize your I.T.)

ibm.com/systems/innovate1

1 800-IBM-7777 mention 104CE04A

IBM TotalStorage **DS400 Express**

Exceptional entry-level solution for workgroup storage needs. With advanced functionality, the DS400 supports xSeries servers and utilizes hot-swap Ultra320 SCSI drives for high reliability.

System features

3U rack mount entry-level with up to two controllers	Starts at 584GB / scales to 12TB[6]
2GB Fibre Channel storage systems area network (SAN)	Limited warranty 1 year on-site[3]

From **$8,495**[4•]
(Other configurations as low as $4,995)

IBM Financing Advantage
Only **$237** per month[5]

Credit LLC in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Monthly payments provided are for planning purposes only and may vary based on your credit and other factors. Lease offer provided is based on a FMV lease of 36 monthly payments. Other restrictions may apply. Rates and offerings are subject to change, extension or withdrawal without notice. 6 Denotes raw storage capacity. Usable capacity may be less. IBM, the IBM logo, eServer, BladeCenter, xSeries, TotalStorage, IBM Express Servers and Storage, Enterprise X-Architecture and Xtended Design Architecture are trademarks or registered trademarks of International Business Machines Corporation in the United States and/or other countries. Intel, Intel Inside, the Intel Inside logo, and Intel Xeon are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Other company, product and service names may be trademarks or service marks of others. © 2005 IBM Corporation. All rights reserved.

Ready For Hosting?

MSPs fill in IT gaps but are no one-size-fits-all solution. By Mary Brandel

YOU MIGHT say that Premier Inc. in Charlotte, N.C., is through with outsourcing. Three years ago, it let its contract with its provider of five years run out and insourced nearly all aspects of IT. But there's one function the health care consultancy couldn't justify bringing back in-house: the help desk, says Greg Archer, vice president of corporate IT services.

Unlike other areas of IT, the help desk wasn't supporting a rapidly changing business model. Considering the time and cost involved in developing the help desk infrastructure itself, plus training and managing personnel, outsourcing looked favorable, he says.

But Archer didn't turn to a traditional outsourcer; he hired Everdream Corp., a Fremont, Calif.-based managed service provider (MSP) that provides Web-hosted desktop management services. Now, when Premier users call the help desk, each call is answered by an Everdream technician who — thanks to agent technology deployed on the users' PCs — can troubleshoot and fix the issue remotely. If the problem is too complex, it can be escalated to Premier's on-site staff. The agent technology also alerts Everdream to which PCs need the latest patches so the MSP can automatically update them over the Internet.

"The demands our business is putting on us are causing us to change rapidly, with the exception of the help desk, which is more standardized and isn't going to change significantly," Archer says. "And at the same time, we knew we could improve our service levels" via an MSP.

As more businesses like Premier turn to MSPs, they are taking a hard look at their IT operations before slicing off a piece that's MSP-friendly. The final decision depends on how companies view their IT operations — what's core, what's rote, what they don't have the resources for and what they wouldn't trust anyone but themselves to do. And those determinations must he weighed against the many benefits an MSP can offer, such as reduced costs and automated operations, as well as possible pitfalls of this model, such as security issues or the inflexibility of a one-size-fits-all application.

In Premier's case, going with an MSP — combined with insourcing its other IT operations — has resulted in increased uptime on all of the company's core systems, improved customer satisfaction and at least $2 million in savings, Archer says.

But for another company, handing

Help Wanted

over desktop management to an MSP might be a big mistake, says Jeff Kaplan, managing director of Thinkstrategies Inc. in Wellesley, Mass. "Some organizations have a culture that permits a certain amount of customization in the desktop arena, which may not be acceptable from an MSP perspective, since they might need to standardize the platforms to effectively manage them," he says.

Not to mention the fact that if you've enlisted the MSP to manage a full range of desktop management services and a service fails in some way, it could be very disruptive to other parts of your environment if the MSP doesn't take corrective measures quickly, Kaplan says.

For that reason, it's becoming clear that the most important aspect of an MSP relationship is trust — possibly even more so than service-level agreements or a detailed contract. "You've got to have a good partnership," Archer says. "When you have to depend on a contract, you're in trouble."

To Each His Own

The trust factor rings true for Interim HealthCare Inc., a health care staffing provider in Sunrise, Fla. The company's major reason for using an MSP was because it lacked a database administrator for its Lawson Software ERP system, which runs on an Oracle database. That was the situation in 2001, when Satish Movva, now CIO, joined Interim.

When Movva looked into hiring a database administrator, he found most candidates' salary requirements to be staggering. Plus, Movva realized, he didn't even need a full-time administrator. He considered hiring a consulting company that he could use on an on-call basis, but he knew he wouldn't always be working with the same database administrator on each trouble call, and it still put him in reactive mode rather than having someone consistently monitoring the database. "The reliability just wasn't there," Movva says. "I wanted a dedicated DBA company."

Movva hired dbaDirect Inc., a data infrastructure management services company in Florence, Ky. Tunneling through Interim's virtual private network, dbaDirect now monitors the Oracle database around the clock using BMC Software Inc.'s Patrol and other tools. Since signing on with dbaDirect, Interim has upgraded the Lawson application three times, with dbaDirect handling the database side.

Most important to Movva is that the MSP knows his system intimately, even though there have been some personnel changes. "That's a huge deal for us," he says. "When your system needs help, you don't want to explain to the guy on the other end how you're set up. You want the consistent face on the other end who knows the network as intimately as your staff, even though he's not full time."

Kaplan agrees that MSPs should offer more than just a remote service; they need a professional services staff that's able to get a firm handle on clients' operations. "It's been an impediment for MSPs that didn't build their business models to include this front-end person," he says.

But as happy as Movva is with dbaDirect and despite the fact that he also uses an offshore MSP for some application maintenance, there are some areas for which he would never use this model.

One of them is the firewall. Interim previously used MCI Inc. as a firewall services provider, but Movva terminated that relationship when he joined the firm. And while many companies use an MSP for network operations, "because we're a health care company, our patient information here is sacrosanct," Movva says. "I don't want to open that up to a third party."

Indeed, with federal regulations such as the Sarbanes-Oxley Act and the Health Insurance Portability and Accountability Act, companies need to be mindful of balancing compliance concerns with MSP activities.

"With a third party tunneling in through the firewall port and penetrating the trusted network, it probably drives the compliance guys crazy," says Ted Chamberlain, an analyst at Gartner Inc. "How can you be fully certified if you've got other parties manipulating your data?"

Similar to Interim, LaBarge Inc., an electronics manufacturing services provider in St. Louis, couldn't justify hiring a full-time staff member to monitor its data center for equipment failures, power outages or temperature fluctuations. Still, it wanted to know of problems right away, especially if they happened outside of business hours.

LaBarge hired Certified Nets Inc., an MSP in Chesterfield, Mo., that uses SilverBack Technologies Inc.'s SilverStreak Management Tunnel, which performs remote monitoring of IP devices over the Internet.

Tweaking the system to LaBarge's needs took a few months, says George Hayward, director of information systems, during which time the MSP set up who needed to be alerted to what. During a two-day power outage caused by storms, the MSP alerted LaBarge's IT staff that the air conditioning in the data center hadn't been powered up by the generator, enabling the company to address the issue before systems failed.

Hayward is considering using an MSP for his storage systems as well. "It used to be a question of whether we could get our data off-site fast and cheap enough, but with bandwidth being as cheap and plentiful as it is now, that's not a gating issue," Hayward says. He will likely go with a hybrid model, but privacy is a major consideration.

Banner Year

The growing desire of enterprises to focus efforts on their core businesses has led them to rely more heavily on MSPs to satisfy their IT and telecommunications requirements. As a result, 53 MSPs that participated in a joint MSPAlliance/Thinkstrategies benchmark study reported the following performance improvements, on average:

- Sales revenue has grown 80% in the past year.
- Sales cycle time has dropped from six months in 2003 to four months currently.
- Contract length has grown to approximately 20 months, compared with 16 months in 2003.
- The percentage of existing clients that buy additional managed services grew to 67.8%, up from 64.7% in 2003.

If you start doing something slightly different from what they're offering up, their one-size-fits-all approach might not fit you

"I'm not sure all our customers would be comfortable with that," he says.

But Hayward's main concern is staying on the radar of the MSP itself. "When you bring someone on full time, your company is all they're thinking about. But if we had a natural disaster in town, [the MSP] has other customers to deal with," he notes. It's important to weigh how many customers the MSP has and where you fall on that list, Hayward adds.

Avoiding the Cookie Cutter

Equally important is finding an MSP that's willing to customize its service to your needs, particularly as your needs change. That means avoiding those whose business models rely on offering a cookie-cutter solution. "If you start doing something slightly different from what they're offering up, their one-size-fits-all approach might not fit you," Archer says.

For instance, Archer knows he'd like to develop a problem-tracking and change management workflow system for Premier's internal use and then integrate that with Everdream's problem-tracking system.

The type of integration Archer is seeking is still rare, according to Gartner's Chamberlain, but it may become less so. "Right now, the majority of MSP-like services are basic monitoring/management services," he says. "But [increased integration] is a natural progression, and there will need to be standardization around things like Web services to make it easier to trade application components."

Whatever the case, Archer is confident that he has chosen a partner that will be open to making the system work. "I believe there can be many pitfalls if you have a company that's not willing to work with you when you have significant changes to your business," he says.

Brandel is a Computerworld contributing writer. Contact her at marybrandel@verizon.net.

Data Diligence

It takes a skilled lawyer to skirt danger zones in a managed service provider agreement. **By Jennifer Jones**

IT'S TIME to bring on a managed service provider. First, hire all the lawyers — or at least consider having some legal representation. Ideally, enterprises large and small will have access to an IT attorney who specializes in security, privacy and the myriad new data disclosure laws that regulate many sectors.

Minus legal representation, companies could be open to serious liability. For instance, if an MSP is hacked or personal data is stolen or compromised by MSP employees, the customer will be held entirely responsible. Hence, agreements should spell out security measures and background checks.

"There should at least be an agreement in place that ensures MSPs disclose breaches," suggests Michael Rasmussen, an analyst in Forrester Research Inc.'s enterprise risk/compliance management group.

Be warned, however, that lawyers who know the ins and outs of these areas are hard to find. Given this scarcity of seasoned IT attorneys, some businesses have the option of spending long hours educating corporate lawyers on the nuances of hiring an MSP or simply forgoing legal representation altogether.

Most experts agree that some attorney involvement is better than none at all and urge enterprises to invest upfront to guard against legal and security land mines — a rigorous exercise, but one with many potential payoffs. For instance, MSP negotiations offer a chance to re-examine languishing privacy policies or to comb through and tighten security measures.

For these reasons, MSP agreements brokered by larger corporations almost always filter through legal departments. Says Mike Kline, manager of network operations at KB Toys Inc. in Pittsfield, Mass., "Absolutely every contract KB Toys signs goes through our in-house counsel for approval. What they typically do is add our own terms that govern areas such as exclusivity, liability and privacy." The retailer of children's products relies on MSP Atrion Networking Corp. in Warwick, R.I., for managed network services.

At Wine Warehouse in Commerce, Calif., lawyers are included early on. "Once it is determined that the MSP is a viable candidate and that the services merit the investment required, then a series of 'what if' scenarios should be run through," advises Kim Bugayong, vice president of IT. Wine Warehouse outsources services such as patch management and server and backup monitoring to provider Alvaka Networks Inc. in Huntington Beach, Calif.

Vigilance is prudent, not because MSPs are neglectful but because problems are common, experts say. "When outsourcing, it is surprisingly easy to do things like run afoul of a privacy policy," says Dennis Kennedy, an IT attorney in St. Louis.

Small to midsize businesses are the most vulnerable. "These companies are often run by CEOs who don't always know they need a lawyer to review MSP contracts before they sign them," Kennedy adds.

That oversight can easily prove to be a huge mistake, notes Thomas Barnett, special counsel at New York-based law firm Sullivan & Cromwell LLP. "If a company is subject to federal and/or state regulations concerning disclosure of client information — such as those in the medical and banking industries — then any inadvertent disclosures of such information by the MSP could create significant liability for the company," he says.

Know Thy Ally

Along with soliciting good legal advice, enterprise IT officials poised to hire MSPs would be wise to examine thoroughly both the service provider they're courting and the MSP agreement they're considering. "I'm looking for the track record of the vendor," says Kline.

After establishing a level of trust, spell out the limitations of the arrangement that will be put in place, advises Barnett. "It is typical to have an MSP execute very detailed confidentiality provisions that clearly define the ownership and handling of the data, as well as its disposition," he says.

Data handling is especially critical, notes Ian Campbell, president of Nucleus Research Inc. in Wellesley, Mass. "You may want to think about dedicated cabinets," he advises. "This way, your applications are physically separated and locked down, so you don't have to worry about who is wandering through your server farm."

Also consider the insertion of indemnification clauses that force the MSP to shoulder the burden of compliance, suggests Robert Scott, an attorney at Dallas-based law firm Scott & Scott LLP.

"Avoid agreeing to limitations of liability, to ensure that the MSP has a financial stake in the client's compliance obligations," he says.

Just remember that ultimate responsibility will not rest with the MSP. "You can outsource development, business practices and other services, but you cannot outsource your liability," Forrester's Rasmussen wrote in a recent report.

Fringe Benefits

While a corporation can't offload liability, it can use MSP negotiations to shore up internal practices. "My experience with MSPs is that a lot of them are playing catch-up along with their clients," says Charles Weaver, co-founder of the MSPAlliance in Chico, Calif.

For instance, the due diligence behind KB Toys' deal with Atrion enhanced its compliance with the stringent security guidelines from Visa U.S.A. Inc. The credit card behemoth imposes guidelines on merchants through its Cardholder Information Security Program. "This has really forced us to completely double-check our security and access," says Kline.

Dusting off established privacy policies during MSP negotiations is also a good idea, especially if the service provider will be handling client data. "Usually, an MSP arrangement essentially moves this data to an external site but does not transfer ownership. The privacy policy needs to explain this," cautions Wine Warehouse's Bugayong.

Don't stop with new MSP deals. Experts also advise enterprises to peruse existing contracts with an eye toward liability.

"You can't just roll over and pull the sheets over your head," insists John Stehman, director of research at Robert Francis Group Inc. in Westport, Conn. "You've got to renegotiate."

Jones is a freelance writer in Vienna, Va. Contact her at jjwriterva@aol.com.

ADVICE ONLINE

Lawyers offer free advice for negotiating and maintaining agreements with MSPs: computerworld.com/outsourcing

Simplify your I.T. and your business. IBM servers and storage are designed to help you do just that. Take the IBM TotalStorage® DS4100 Express with DACstore. It can help you reconfigure or add capacity while staying up and running. No need to stop to reset drives.

Because with IBM Express, innovation comes standard. That's true for servers, storage and printers. What's more, you can keep your technologies current while helping to reduce costs – through IBM Global Financing.

All things considered, an I.T. hero deserves nothing less.

MEET 3 HEROES IN THE BATTLE AGAINST I.T. COMPLEXITY. YOU'RE THE 4TH.

IBM TotalStorage **DS4100 Express**

Ships with 1.25TB[1]
DACstore for configuration metadata
3.5TB with 1 controller, 28TB with 2[1]
Limited warranty 1 year on-site[2]

From **$7,349***

(Other configurations as low as $6,599)

IBM Financing Advantage
Only **$206**/mo.[3]

IBM eServer™ OpenPower™

IBM eServer OpenPower 720 Express

Built on IBM POWER5™ technology and tuned for Linux®
2- or 4-way 64-bit, rack or tower models
Up to 8GB of memory, disk capacity up to 1.1TB[1]
Optional Advanced Virtualization features
DB2® Express Discover CD
Limited warranty up to 3 years on-site[2]

From **$9,774***

IBM Financing Advantage
Only **$273**/mo.[3]

IBM TotalStorage®

IBM TotalStorage 3580 Express

Helps protect LTO™ investment
Built on Ultrium™ 3 technology
Read/write compatible with Ultrium 2 drives – read compatible with Ultrium 1 drives
Up to 800GB cartridge physical capacity with 2:1 compression[1]
Limited warranty 3 years on-site

From **$5,850***

IBM Financing Advantage
Only **$164**/mo.[3]

Learn more about our full range of IBM Express products and find the IBM Business Partner near you.

ibm.com/
systems/innovate

1 800-IBM-7777
mention 104CE05A

All prices stated are IBM's estimated retail selling prices as of September 13, 2005. Prices may vary according to configuration. Resellers set their own prices, so reseller prices to end users may vary. Products are subject to availability. This document was developed for offerings in the United States. IBM may not offer the products, features, or services discussed in this document in other countries. 1. Denotes raw storage capacity. Usable capacity may be less. 2. Telephone support may be subject to additional charges. For on-site labor, IBM will attempt to diagnose and resolve the problem remotely before sending a technician. On-site warranty is available only for selected components. 3. IBM Global Financing offerings are provided through IBM Credit LLC in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Monthly payments provided are for planning purposes only and may vary based on your credit and other factors. Lease offer provided is based on a FMV lease of 36 monthly payments. Other restrictions may apply. Rates and offerings are subject to change, extension or withdrawal without notice. IBM, the IBM logo, eServer, TotalStorage, OpenPower, POWER5 and DB2 are trademarks or registered trademarks of International Business Machines Corporation in the United States and/or other countries. Linux is a trademark of Linus Torvalds in the United States and other countries. LTO and Ultrium are trademarks of Certance, HP and IBM in the U.S. and other countries. Other company, product and service names may be trademarks or service marks of others. ©2005 IBM Corporation. All rights reserved.

Five Questions For Your MSP

And other tips for negotiating a contract. By Julia King

MANAGED SERVICE providers sell IT-enabled services, which large businesses are increasingly buying piecemeal rather than charging their own IT organizations to acquire, install and run departmental applications in-house. In many cases, individual lines of business or functions such as marketing or human resources departments are contracting and paying for the services, bypassing internal IT organizations in the process.

But experts say the most successful arrangements with MSPs are those designed and negotiated when business and IT managers work together. "This is because most services are not provided in a vacuum. Data from an MSP still must be fed to the customer and vice versa. IT is still involved," says Mike Slavin, a partner at TPI Inc., an IT sourcing consultancy in The Woodlands, Texas.

Here are five questions you should ask to help your business users effectively negotiate the best MSP contracts — and keep IT in the loop.

1 Who owns the license?

The MSP almost always owns the license to software used to provide a service. In fact, the MSP typically owns virtually all hardware, software, support and maintenance involved in delivering services such as sales contact management or benefits administration, according to Slavin.

"An MSP's value proposition is an end business result," as opposed to delivering services using specific tools, he says. And that's just as well, he adds, since buyers of MSP services — typically business managers rather than IT managers — don't care about the "IT plumbing," as long as they are regularly getting the reports, sales leads or other services for which they've contracted.

2 Who owns the process?

The customer owns the process, and the MSP executes it. For example, Whirlpool Corp. recently signed a 10-year contract with Cincinnati-based Convergys Corp. to provide Web-based human resources services to the appliance manufacturer's 68,000 employees worldwide. Whirlpool's compensation requirements vary by country, and the company is able to modify its processes on a country-by-country basis, says Abby Luersman, vice president for HR solutions at Benton Harbor, Mich.-based Whirlpool. At the same time, Convergys is using SAP software worldwide to deliver the Web-based services, so Whirlpool gets the benefit of global data consistency.

"Our HR generalists can leverage data globally around issues like diversity reporting and talent pool management," Luersman says. "We have one global [software] platform, with consistency and standardization."

3 How will users be affected?

The biggest change with an MSP arrangement is that users can now bypass internal IT organizations. At the same time, users should expect to interact with the MSP in a more structured, disciplined way than they interact with internal IT, experts say. MSPs are very process-oriented, and there is a clearly defined set of steps users will need to take to obtain support or make a change. These are established at the beginning of the customer/MSP relationship via service-level agreements or contracts.

"There's a scripted nature to interacting with an MSP versus running down the hall and grabbing some IT guy and saying, 'Fix this now,' " says Slavin.

Another key difference is that many MSP-provided services are typically purchased by individual lines of business rather than a centralized procurement or IT organization, notes Damien Bean, co-founder of CareerCurrency LLC, an MSP that offers online training services.

"The structure and pricing [of MSPs] allow end-user departments to now engage services directly and pay from their own operating budgets. Hence, the ability to bypass IT," he says.

4 Where do the savings come from?

Typically, there are little or no cost savings in the conventional sense. What MSPs offer is "cost predictability," says Robert McNeill, an analyst at Forrester Research Inc. in Cambridge, Mass. "There's also cost flexibility in that you can switch services on and off," McNeill says.

Pulte Homes Inc., a $12 billion homebuilder in Bloomfield Hills, Mich., has a contract with Siebel Systems Inc., which was recently acquired by Oracle Corp., for Siebel's CRM OnDemand services. "But we didn't go after it for the cost savings," says Jerry Batt, CIO at Pulte.

Batt compares the economics of contracting with an MSP to those of leasing a new automobile instead of buying it. "The cash outlay overall is more if you lease, but you have upfront costs if you buy," he says. In contracting for a service, Pulte obtained the latest and most sophisticated technology right away at a much lower upfront cost than it would have incurred had it bought and built its own CRM system, Batt notes.

TPI's Slavin says customers shouldn't consider MSP services in terms of potential cost savings anyway. "There's not a straight-up IT cost savings, because the MSP is usually providing some service that the current internal IT infrastructure couldn't have done," he says. It's more about results, such as gaining access to a new customer set, expanding your business or reducing your time to market, he says.

5 What's the exit strategy?

Whirlpool's Luersman recommends that users take particular care in working out this part of an MSP contract. She also recommends building very specific timelines and details into the contract upfront. For example, if Whirlpool has a fluctuation in its employee head count or needs to change a business process as a result of an acquisition, Convergys has a 60-day window to work through and change all of the services it provides.

Bill Martorelli, another analyst at Forrester, says users should also be sure to include change-of-ownership provisions in all contracts with MSPs. Over the past few years, Martorelli notes, there has been an ongoing consolidation in the MSP market. "If a new owner takes the acquired MSP in a different direction, the user wants to be able to get out of the contract," he says.

Even more important to consider is a replacement strategy, says CareerCurrency's Bean. "Exit strategies are an important consideration, but it may be time to also reconsider IT's inherent reluctance to outsourcing," he says. "The proper question relating to an exit strategy is not how do we get out of something but how do I replicate the underlying process somewhere else. It's about protecting the investment."

Juniper Your Net™

"Last Quarter's remote employee statistics are in,.. 10% can't access our network, 20% thought we moved without telling them, 15% can't retrieve e-mails, 14% are being told they're viruses and the rest, well, they've quit."

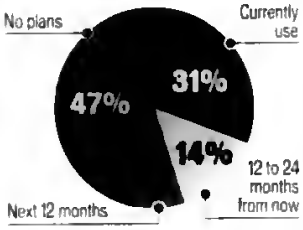
>> **Remote users calling it quits?** You need *Secure and Assured* application acceleration, only from Juniper Networks. It means superior application delivery and performance for *all* users – employees, customers and partners. Plus increased control, and improved productivity. For more info, visit **www.juniper.net/appaccel**

Juniper

888-JUNIPER (888-586-4737)

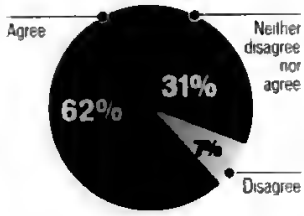
Use of ASPs

Almost one-third of U.S. companies currently use application service providers, and a further 22% suggested that they will in the next two years.



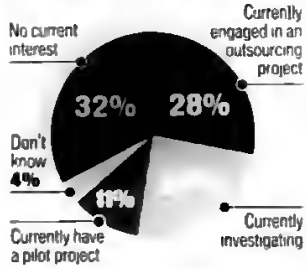
BASE: 104 U.S. companies (small, midsize and large)
SOURCE: GARTNER INC., STAMFORD, CONN.

Software as a service will have a significant impact on the way my company purchases software within the next year.



BASE: 178 IT executives
SOURCE: IDC, FRAMINGHAM, MASS., APRIL 2005

Which statement best describes your company's interest in outsourcing applications?



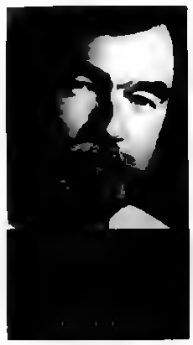
BASE: 115 IT decision-makers at North American services firms. Percentages don't total 100 due to rounding.
SOURCE: FORRESTER RESEARCH INC., CAMBRIDGE, MASS., SEPTEMBER 2005

MARK HALL

The New MSPs

IF YOU'RE WORKING at a midsize company, you probably depend on a valued-added reseller, or VAR. If you happen to be at a small business, your VAR might just be your entire IT department. So, in some cases, your reseller is a trusted business partner; in others, it's your business lifeline.

But despite your long-standing relationship with your VAR, its business model is wobbling on the edge of a cliff. The margins on the hardware and software that VARs install for you have collapsed to almost zero.



So, no matter how dependent you are on your VAR, now is the right time to evaluate its business model. Is it the old-fashioned VAR — delivering and configuring systems, handling backups, troubleshooting your network on-site? Well, if the market dynamics continue the way they're going, you might not be working together much longer. At least, not unless your VAR has plans to morph into a managed service provider, or MSP.

Gartner's research indicates that as many as 40% of the nation's VARs could go belly up if they don't change their old business models of charging you a small premium to install your PCs, servers and routers and billing you by the hour to do problem resolution. What your VAR needs to do, Gartner suggests, is become an MSP and charge you a small monthly fee to manage your IT infrastructure among other services.

Luckily for VARs, you are becoming more interested in subscribing to MSP-style offerings. And not just those of you who work at large, corporate IT shops and are accustomed to outsourcing anything and everything. Forrester Research polled 869 IT decision-makers in small and midsize businesses (SMB) and learned that 12% are ready to outsource the management of their entire infrastructures. Doesn't sound like much, but it's up from a mere 8% in 2004. At the same time, 26% of SMBs are willing to offload at least the PC part of their infrastructures to an MSP, versus only 18% last year.

If you're working at a big company, you might think SMBs are small potatoes. But you'd be wrong. Forrester estimates that they will shell out nearly 50% of the $785 billion IT dollars spent in the U.S. this year. And while large corporations and government are spending 6% more year over year, SMBs are growing at 8% annually.

However, SMBs shouldn't blithely assume that their friendly VARs will be able to smoothly make the trip to MSP land. At the very least, to do the job right, your MSP will need a network operations center of some sort. Pay it a visit, if you haven't already. Does it have the remote monitoring capability, the tools and the right people to handle not just your needs, but every one of the VAR-cum-MSP's other customers as well? Remember, this is a shared service. That's the new business model for your longtime business partner. Yes, the VAR part of the business will still show up and install your PCs, servers and whatnot, but it'll make its real money by remotely managing them.

Still, some of you have been burned by MSPs in the not-so-distant past. When MSPs first emerged in the late 1990s, then known primarily as application service providers, they initially went after SMBs — then promptly fell on their faces. The remote management tools weren't as effective as promised, and the costs to manage devices were higher than most SMBs could afford. This time, MSPs have learned their lessons and intend to win over SMBs along with larger companies.

"Managed service providers are making a comeback, just like Martha Stewart," says Christine Washburn, vice president of marketing at Billerica, Mass.-based SilverBack Technologies, which sells remote monitoring tools specifically for MSPs.

She recalls that in the late 1990s, MSPs would charge up to $2,000 per month to manage a single server. In the days when Unix systems administrators in Manhattan could bring down nice six-figure salaries, this might have made some sense. But in the post-IT-bubble economy, and with offshore tech talent pressuring salaries downward, that old model is stupid. However, Washburn says, improved monitoring tools let the new MSPs manage more endpoints and more customers with fewer technicians. So much so, she says, that the average price MSPs charge to manage servers is down to $110 per month.

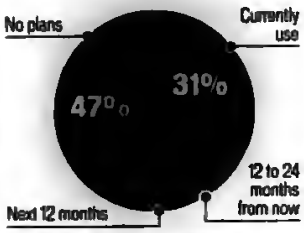
The new MSPs stand a real chance this time around, in part because their ideal target market — SMBs — is ready to embrace them. And, in part, because the business model for MSPs now makes sense.

But your friendly VAR? It's toast.

SNAPSHOTS

Use of ASPs

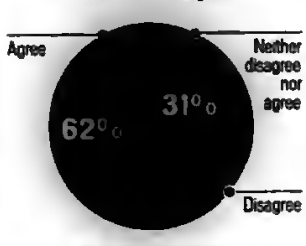
Almost one-third of U.S. companies currently use application service providers, and a further 22% suggested that they will in the next two years.



BASE: 104 U.S. companies (small, midsize and large)

SOURCE: GARTNER INC., STAMFORD, CONN., AUGUST 2005

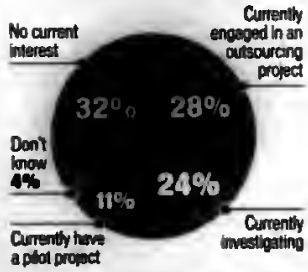
Software as a service will have a significant impact on the way my company purchases software within the next year.



BASE: 170 IT executives

SOURCE: IDC, FRAMINGHAM, MASS., APRIL 2005

Which statement best describes your company's interest in outsourcing applications?



BASE: 10 IT decision makers at North American corporations, Percentages don't total 100 due to rounding.

SOURCE: FORRESTER RESEARCH INC., CAMBRIDGE, MASS., SEPTEMBER 2005

MARK HALL

The New MSPs

IF YOU'RE WORKING at a midsize company, you probably depend on a valued-added reseller, or VAR. If you happen to be at a small business, your VAR might just be your entire IT department. So, in some cases, your reseller is a trusted business partner; in others, it's your business lifeline.

But despite your long-standing relationship with your VAR, its business model is wobbling on the edge of a cliff. The margins on the hardware and software that VARs install for you have collapsed to almost zero.

So, no matter how dependent you are on your VAR, now is the right time to evaluate its business model. Is it the old-fashioned VAR — delivering and configuring systems, handling backups, troubleshooting your network on-site? Well, if the market dynamics continue the way they're going, you might not be working together much longer. At least, not unless your VAR has plans to morph into a managed service provider, or MSP.

Gartner's research indicates that as many as 40% of the nation's VARs could go belly up if they don't change their old business models of charging you a small premium to install your PCs, servers and routers and billing you by the hour to do problem resolution. What your VAR needs to do, Gartner suggests, is become an MSP and charge you a small monthly fee to manage your IT infrastructure among other services.

Luckily for VARs, you are becoming more interested in subscribing to MSP-style offerings. And not just those of you who work at large, corporate IT shops and are accustomed to outsourcing anything and everything. Forrester Research polled 869 IT decision-makers in small and midsize businesses (SMB) and learned that 12% are ready to outsource the management of their entire infrastructures. Doesn't sound like much, but it's up from a mere 8% in 2004. At the same time, 26% of SMBs are willing to offload at least the PC part of their infrastructures to an MSP, versus only 18% last year.

If you're working at a big company, you might think SMBs are small potatoes. But you'd be wrong. Forrester estimates that they will shell out nearly 50% of the $785 billion IT dollars spent in the U.S. this year. And while large corporations and government are spending 6% more year over year, SMBs are growing at 8% annually.

However, SMBs shouldn't blithely assume that their friendly VARs will be able to smoothly make the trip to MSP land. At the very least, to do the job right, your MSP will need a network operations center of some sort. Pay it a visit, if you haven't already. Does it have the remote monitoring capability, the tools and the right people to handle not just your needs, but every one of the VAR-cum-MSP's other customers as well? Remember, this is a shared service. That's the new business model for your longtime business partner. Yes, the VAR part of the business will still show up and install your PCs, servers and whatnot, but it'll make its real money by remotely managing them.

Still, some of you have been burned by MSPs in the not-so-distant past. When MSPs first emerged in the late 1990s, then known primarily as application service providers, they initially went after SMBs — then promptly fell on their faces. The remote management tools weren't as effective as promised, and the costs to manage devices were higher than most SMBs could afford. This time, MSPs have learned their lessons and intend to win over SMBs along with larger companies.

"Managed service providers are making a comeback, just like Martha Stewart," says Christine Washburn, vice president of marketing at Billerica, Mass.-based SilverBack Technologies, which sells remote monitoring tools specifically for MSPs.

She recalls that in the late 1990s, MSPs would charge up to $2,000 per month to manage a single server. In the days when Unix systems administrators in Manhattan could bring down nice six-figure salaries, this might have made some sense. But in the post-IT-bubble economy, and with offshore tech talent pressuring salaries downward, that old model is stupid. However, Washburn says, improved monitoring tools let the new MSPs manage more endpoints and more customers with fewer technicians. So much so, she says, that the average price MSPs charge to manage servers is down to $110 per month.

The new MSPs stand a real chance this time around, in part because their ideal target market — SMBs — is ready to embrace them. And, in part, because the business model for MSPs now makes sense.

But your friendly VAR? It's toast. ▶

Ads Placed Weekly

Didn't find the IT Career Opportunity you were looking for?

Check back weekly for fresh job listings placed by top companies looking for skilled IT professionals like you!

IT|careers
800-762-2977

Computer Support Specialist wanted by wastepaper wholesaler in Los Alamitos, CA. Bach. in Comp. Sci. related. Mail resume to Sunshine Paper LLC. 4281 Katella Avenue, Suite 222, Los Alamitos, CA 90720.

Network Specialist in Houston metro area. Design, configure, & test computer hardware, networking software, & operating system software for shipping industry. Maintain, trouble shoot & administer computer networks. Requirements: Bachelor degree in Engineering or Computer Science PLUS 2 yrs. exp. in job. Fax resumes to JDL Enterprises, Inc. Fax: (713) 521-7832.

Technical Services Manager's / Senior Software Architect's. Perform full life cycle development, testing, implementation using Oracle, SQLServer, C++, XML, UML, Java, J2EE, CGI/PERL, Weblogic and Websphere. Handle critical operations, Strategic computing & disaster recovery on UNIX/Solaris/Window based systems. Req: MS in Comp Sci/Engg. & 6 months of exp. Send resume to HR, Object Technology Solutions, Inc., 8645 College Blvd Ste 250, Overland Park, KS 66210.

Shop-Floor Software engineer wanted by VIA Information (Metro MI) To advance scope and breadth of VIA's core product, Man-IT Business Atom Engine®, ascertain new customer requirements and formulate process maps. Require MS/BS+5yr IT exp. Please send resumes to manit_resumes@via-it.com.

Detroit Housing Commission (DHC) seeks system analyst to customize application for house project, integrate DHC intranet with active directory using ASP.Net, VB, Foxpro Must have MS or BS+5yr exp Send resumes to 2211 Orleans St, Detroit, MI 48207 EOE No calls

---

Computer Professionals (Iselin) NJ based IT firm. Jr Lvl pos'n Progmr Analysts, Software Engrs, Sys Analysts, to dvlop, create, & modify general comp applic s/ware or specialized utility programs. Analyze user needs and dvlop s/ware solutions.

Sr Lvl Pos'n. IT Mngrs, MIS Mngrs, ITS Directors to plan direct, or coordinate activities in such fields as electronic data processing, infor sys, sys analysis, & comp progming.

Apply w/2 copies of resume to HRD, Software Research Group, Inc., 485 E. Rt 1 South # 240 Iselin, NJ 08830

Software

VP Technology

ORSYP Software, Inc (Bedford, MA) seeks VP. Reqs: MS Degree in Comp Sci. 3 yrs exp. Must write/speak French. Excint knowledge Op Systems (mainframe & distributed).

Please forward resume to T. Manissol (reference VPTech in subject line) at: tma@orsyp.com.

Network/Application Developer.

We seek a candidate who can work through a network of multiple convince stores. Must have strong skills of Schema Relational Database design, UML, OOAD, VB Net, Crystal Reports: Email, Firewall Configuration, Active Directory, Routers and Switches. BA Computer Science with 2+yrs exp. req. Sent resumes to NAWAB CORP., 5 Farmers Lane, Head of Harbor NY 11780.

Computer Network Software Administrator. Send resume to: Mary Kay Berg, Point.360, 2777 North Ontario Street, Burbank, CA 91504.

Healthcare
Security & Defense
Finance
Biotech/Pharmaceutical
Insurance
Diversity
Consulting
Telecom/Wireless
Manufacturing
And many more....

Our readers include the qualified IT professionals that your company is looking for.

For more information, contact us at: 800-762-2977

IT|careers

Thomson Inc. is seeking a Cryptography Research Eng., Sr Member Tech Staff, at its Burbank, CA location to conduct research and dvlmt of fundamental mathematics and mathematical techniques (incl Algebras: Cryptography and Applied Cryptography) to identify conditional access and copy protection technologies suitable for use in a wide array of new digital products. Must have Master's degree or higher in Mathematics or Comp. Sci. (educ must have included coursework in Applied Cryptography and Algebraic Cryptography) plus 1 yr of exp. in the related occupation of Cryptography Research. Salary and benefits commensurate with exp. Send resumes to: Thomson, Inc. Attn: HR - Job # 9012, 10330 North Meridian St., Indianapolis, IN 46290-1076.

EDS is looking for an Information Analyst for its Chesapeake, Virginia location to analyze plan documents, user requirements, procedures and problems to automate and improve existing systems. Requires Bachelors degree in English and one (1) year of experience in writing and translating technical specifications, building table utilities using Access and VB. To apply, submit resume to Richard Palmer, Implementation Team Leader EDS, 1434 Crossways Boulevard, Chesapeake, Virginia 23320 in reference to 1111-J

Software Engineer, Applications - York, ME. Informatic Technologies Inc. needs exp. professionals, to develop, create & modify specialized applications using DB2 Oracle, Servlets, Java, Weblogic, Rational Rose, Visual SourceSafe, JBuilder, Crystal Reports. Coordinate user needs and customize changes to enhance operational efficiency. Competitive salary with benefits. Send resume to - Informatic Technologies Inc., Meadow Brook Plaza, 647 US Rt 1, Suite 212, PO Box 2000, York, ME 03909 Attn: HR Department

---

IT Manager (NY) IT firm to plan, direct, or coordinate activities in fields as electronic data processing, information systems, systems analysis, and computer programming. Consult with users, management, vendors & technicians to assess computing needs & system requirements. Apply w/ 2 copies of resume HRD Amatronix, Inc., 246 5th Avenue, Ste # 602, New York, NY 10001.

NY IT Firm seeks F/T Progmr Analyst w/B.S. in Comp Sci./Electronics & 2 yrs. exp., to plan & dvlop comp. programs, Analyze user needs & system req., Translate& code s/w programs & applic's using JDBC, SQL, JAVA & J2EE techns. Proficient in Java design patterns & implmns, data comm & applic'n security concepts & security architecti skills 9-5p/40hr/Wk, Comp Sal, Reply w/2 copies to: Global Source Group, Inc. 825 Walt Whitman Rd, Melville, NY 11747.

Product Manager
Networks and IP Systems

ADI, a Honeywell subsidiary is seeking a manager responsible for identifying new/enhanced products, determining their value to the organization, participating in the marketing of products and providing product lines to the sales force within area of specialty.

Primary duties and responsibilities include:

- Identify new and enhanced network and IP products with a focus on commercial systems that integrate two or more separate product categories, such as CCTV, access control, and intrusion.
- Attend trade shows, stay current with industry trends, research new products, seek new markets and meet with manufacturing representatives.
- Monitor product offerings by reviewing current systems, networking and IP product lines, and ensuring acceptable inventory/pricing levels which are also consistent with market demands and company strategy.
- Participate in creating marketing plans, developing short/long-term marketing strategies, providing input to catalog/internet promotional initiatives and supporting overall corporate strategies.
- Ensure product support by developing positive relationships with vendors and also maximizing vendor training.

Must be able to travel (up to 25%). He/she must be able to read, write, speak, stand, sit and reach. Bachelor's degree in marketing or other business related discipline with a minimum of five (5) years in product marketing/sales preferably in security or IT industry. Strong technical knowledge and experience with networks and IT systems. Strong verbal, written organization, time management, team, and problem resolution skills required.

Please apply on line to www.honeywell.com/careers/hrxpp.html. Enter req. # 00039706 EOE

Research Assoc. (Pittsburgh, PA) Develop, assess privacy anonymity software systems and in algorithms that learn from disparate data sources (k-anonymity, assoc rule related problems). Design, develop algorithms in implementation of systems and performing statistical and formal analyses of data and systems. Analyze data collected via statistical software packages. Prepare results. M.S. Data Mining, Statistics, or Computer Sc w/strong educ. foundation in data privacy / anonymity, data mining, machine learning, data analytics, probability, statistics. Extensive educ. Know of C/C++ Java, Matlab, database / hardware design software implementation. Travel req'd. 40hrs/wk. Must have perm. work auth. to work in U.S. Send resume to Ste Schaefer, Carnegie Mellon Univ, ISRI, Wean Hall 5319, 5000 Forbes Ave., Pgh., PA 15213.

COMSYS

With 35 branch offices located across the US, COMSYS is actively recruiting for the following positions:

Programmer Analyst - metro Newark, DE - Code # NE110
Software Engineer - metro St. Louis, MO - Code # SL120
Systems Analyst - metro Ft. Lauderdale, FL - Code # FL110
Statistical Database Analyst - metro Chicago, IL - Code # NO190
Systems Analyst - metro Richmond VA - Code # RI110.

Roving employment to various jobsites throughout the US. Please refer to appropriate job code when submitting resume to: COMSYS, Attn: Nancy Theriault, 15455 N. Dallas Pkwy., Ste 300, Addison, TX 75001 EOE AA/F/D/V

Web Configuration Manager, NYC Coordinate dev. of web systems in multi-platform environment. Maintain Version Control CVS, make build/releases using MAKE, ANT, PERL. Coord dev of Web based functions. Dev web applications for web site using Java, JSP Servlets. Dev middle office manager system using Java, Swing. Perform QA Automation using Rational Quick Test Professional. M.S., B.S. or equivalent in C.S. req'd + 3 yrs exp w/ M.S., 5 yrs w/ B.S. e-mail resume to careers@mistutrading.com

---

IT consulting firm with HQ in Oak Brook, IL has multiple openings for IT professionals to serve multiple clients throughout the U.S. Job duties include: Analysis, design, development and testing of computer applications. Specific skill sets needed include:

- .Net developers JO-010
- J2EE developers JO-020
- Data warehousing developers (Cognos/Informatica, Abinitio/Business Objects) JO-030
- Oracle Developers/DBA JO-040
- Siebel Developers JO-050
- ATG Developers JO-060
- Systems Administrators JO-070
- ERP Consultants - Oracle/Peoplesoft/SAP JO-080
- Business Analyst JO-090
- Project Manager - SDLC documentation JO-100

Positions require either a B.S. degree in a related field and 1-2 yrs of exp. w/specific skill sets. Some entry level positions are available & require a M.S. degree & related coursework or exp. Some senior level positions are also available & require 5 yrs. of progressive exp. Competitive salaries. Must be willing to travel/relocate. Send resume to jobs@dhi.com. Refer to specific JO# for consideration. Applicants must have authority to work permanently in the U.S.

HOWARD UNIVERSITY
University Advancement

Associate Vice President for Advancement Services. Salary Commensurate with Experience. This position manages the Advancement Services department and direct support and coordination for all advancement information systems for the University for gift/campaign accounting and reporting, the alumni/development database, the advancement email databases, gift processing, donor relations and prospect tracking/research. Supervises a staff of 17. Bachelor's degree plus 5 - 7 years experience in managing advancement services effort, preferably in higher education. A proven track record of success in database management and systems analysis and administration at an institution of higher education. Capital Campaign experience is preferred. Advanced degree preferred. Email: [illegible]@howard.edu

EQUAL OPPORTUNITY EMPLOYMENT

COMPUTERWORLD HEADQUARTERS

One Speen Street, P.O. Box 9171
Framingham, MA 01701-9171
Phone: (508) 879-0700
Fax: (508) 875-4394

PRESIDENT/PUBLISHER/CEO
Matthew J. Sweeney
(508) 271-7100

EXECUTIVE ASSISTANT TO CEO/ CORPORATE COMMUNICATIONS MANAGER
Laureen Austermann
(508) 820-8522

VICE PRESIDENT/ GENERAL MANAGER ONLINE
Martha Connors
(508) 620-7700

VICE PRESIDENT/MARKETING
Matt Duffy
(508) 820-8145

EXECUTIVE VICE PRESIDENT/ STRATEGIC PROGRAMS
Ronald L. Milton
(508) 820-8661

VICE PRESIDENT/ONLINE SALES
Gregg Pinsky
(508) 271-8013

VICE PRESIDENT/ HUMAN RESOURCES
Piper Sheer
(508) 820-8162

EXECUTIVE VICE PRESIDENT/COO
Matthew C. Smith
(508) 820-8102

VICE PRESIDENT/ EDITOR IN CHIEF
Don Tennant
(508) 620-7714

VICE PRESIDENT/CIRCULATION
Debbie Winders
(508) 820-8193

CIRCULATION
Sr. Circulation Specialist/Diana Turco, (508) 820-8167

PRODUCTION
Vice President Production/Carolyn Medeiros; Production Manager/Kim Pennett; Print Display Advertising: (508) 820-8232, Fax: (508) 879-0446; DISTRIBUTION: Director of Distribution and Postal Affairs/Bob Wescott

STRATEGIC PROGRAMS AND EVENTS
Vice President Strategic Initiatives/Lee Leger; Vice President Business Development/John Amato; Senior Director, Event Sponsorship Sales/Ann Harris; Vice President, Event Marketing and Conference Programs/Derek Hulitzky; Director, Event Management/Michael Molendy; Program Director, Computerworld Honors Program/Sandy Welt; Sr. Marketing Specialist/Timothy Johnson; Sr. Marketing Specialist/Matthew Wintringham; Sales Programs Specialist/Colin Longvat; Executive Programs Specialist/Deborah Lee; Custom Events Specialist/Chris Leger; Conference Manager/Nancy Feldheim; Operations Specialist/Chris Johnson; Customer Service Specialist/Mike Barbato; Audience Development Coordinator/Shari Ebb, One Speen Street, Box 9171, Framingham, MA 01701-9171, (508) 879-0700, Fax: (508) 626-9524

ONLINE ADVERTISING
Director of Online Sales/Sean Weglage, (415) 978-3304, Fax: (415) 543-8010; Online Sales Manager, East Coast/James Kalbach, (610) 971-1588; Online Account Executive/Thanh Tu, (415) 978-3309, Fax: (415) 543-8010; Senior Account Services Manager/Bill Rigby, (508) 820-811, Fax: (508) 270-3882; Online Account Services Specialist/Kathryn Beryl, (508) 820-7760, Fax: (508) 270-3882; Online Sales Assistant/Kathy Snow (508) 270-7712, One Speen Street, Box 9171, Framingham, MA 01701-9171, Fax: (508) 270-3882

IT CAREERS ADVERTISING SALES OFFICE
Director of Sales/Laura Williamson, (847) 441-8877, Fax: (847) 441-8878; One Speen Street, Framingham, MA 01701

LIST RENTAL
POSTAL: Rich Green, (508) 370-0832, e-mail: rgreen@idglist.com. E-Mail: Christine Cahill, (508) 370-0808, e-mail: ccahill@idglist.com. MAILING ADDRESS: IDG List Services, P.O. Box 9151, Framingham, MA 01701-9151, Fax: (508) 370-0020

COMPUTERWORLD SALES OFFICES

PRESIDENT/PUBLISHER/CEO
Matthew J. Sweeney
(508) 271-7100
Fax: (508) 270-3882

SALES INTEGRATION DIRECTOR
Laurie Marinone
(508) 628-4823
Fax: (508) 270-3882

NORTHWESTERN STATES
ACCOUNT DIRECTOR: Jim Barrett (415) 978-3306; ACCOUNT EXECUTIVE: Coretta Wright (415) 978-3304, 501 Second Street, Suite 114, San Francisco, CA 94107, Fax: (415) 543-8010

BAY AREA
ACCOUNT DIRECTORS: Jim Barrett (415) 978-3306, Sara Culley (415) 978-3307; ACCOUNT EXECUTIVES: Emma Hung (415) 978-3308, Coretta Wright (415) 978-3304, 501 Second Street, Suite 114, San Francisco, CA 94107, Fax: (415) 543-8010

SOUTHWESTERN STATES
ACCOUNT DIRECTOR: Bill Hanck (949) 442-4006; ACCOUNT EXECUTIVE: Jean Dellarobba (949) 442-4053, 19200 Von Karman Avenue, Suite 360, Irvine, CA 92612, Fax: (949) 476-8724

EASTERN CENTRAL STATES, INDIANA
ACCOUNT DIRECTOR: Peter Mayer (201) 634-2324; ACCOUNT EXECUTIVE: John Radzniak (201) 634-2323, 650 From Road - 2nd Floor, Paramus, NJ 07652, Fax: (201) 634-9289

CENTRAL STATES
ACCOUNT DIRECTOR: Bill Hanck (949) 442-4006; ACCOUNT EXECUTIVE: Jean Dellarobba (949) 442-4053, 19200 Von Karman Avenue, Suite 360, Irvine, CA 92612, Fax: (949) 476-8724

NEW ENGLAND STATES
ACCOUNT MANAGER: Deborah Crimmings (508) 271-7110, One Speen Street, Framingham, MA 01701, Fax: (508) 270-3882

METRO NEW YORK
ACCOUNT DIRECTOR: Peter Mayer (201) 634-2324; ACCOUNT EXECUTIVE: John Radzniak (201) 634-2323, 650 From Road - 2nd Floor, Paramus, NJ 07652, Fax: (201) 634-9289

SOUTHEASTERN STATES
ACCOUNT DIRECTOR: Lisa Ladle-Wallace (904) 284-4972, 5242 River Park Villas Dr., St. Augustine, FL 32092, Fax: (800) 779-8622

ADVERTISER'S INDEX

3COM www.3com.com 65
Avaya www.avaya.com 43
Best Practices in BI Awards Program 57*
CDW Corporation www.cdw.com 11
Cisco www.cisco.com 50-51
Cognos www.cognos.com 47
Computer Associates www.ca.com 33, 34-35
EMC www.emc.com 36-37
Fujitsu Computer Systems Corporation us.fujitsu.com/computers/services 7
Gateway www.gateway.com 57*
Global Crossing www.globalcrossing.com 60
Hitachi www.hitachiyourdata.com 61
Hyperion www.hyperion.com/launch 55
IBM Software www.ibm.com 61-2
IBM Systems Group www.ibm.com 66-67, 71
Insight www.insight.com 15
Intel www.intel.com 30-31
InterSystems Caché www.intersystems.com 28
Juniper Networks www.juniper.net 73
Kyocera Mita America www.kyoceramita.com/us 5
Lenovo www.lenovo.com 26-27
Microsoft Linux microsoft.com/platforms 40-41
Microsoft Security microsoft.com/security/it 52-53
Microsoft SQL Server microsoft.com/bigdata 20-21
Oracle Corp. www.oracle.com 82
Pillar Data Systems www.pillardata.com 49
Ricoh www.ricoh-usa.com/ilchannel 17, 19
SAS www.sas.com 23
Sharp www.sharpusa.com 44
Sterling Commerce www.sterlingcommerce.com 79
Sun Microsystems www.sun.com 13
SunGard Availability Services www.sungard.com 59
Sybase www.sybase.com 9
Trend Micro Inc. www.trendmicro.com 63
Websense www.websense.com 39

*Regional Select Edition

INTERNATIONAL DATA GROUP

CHAIRMAN OF THE BOARD
Patrick J. McGovern

CEO
Pat Kennedy

PRESIDENT, IDG COMMUNICATIONS
Bob Carrigan

Computerworld is a business unit of IDG, the world's leading technology media, research and event company. IDG publishes more than 300 magazines and newspapers and offers online users the largest network of technology-specific sites around the world through IDG.net (www.idg.net), which comprises more than 250 targeted Web sites. In 80 countries, IDG is also a leading producer of IDG computer-related events worldwide, and IDG's research company, IDC, provides global market intelligence and advice through 52 offices in 43 countries. Company information is available at www.idg.com.

IDG

Have a problem with your Computerworld subscription?

We want to solve it to your complete satisfaction, and we want to do it fast.
Please write to: **Computerworld, P.O. Box 3500, Northbrook, IL 60065-3500.**

Your magazine subscription label is a valuable source of information for you and us. You can help us by attaching your magazine label here, or copy your name, address, and coded line as it appears on your label. Send this along with your correspondence.

ADDRESS CHANGES OR OTHER CHANGES TO YOUR SUBSCRIPTION
All address changes, title changes, etc. should be accompanied by your address label, if possible, or by a copy of the information that appears on the label, including the coded line.

YOUR NEW ADDRESS GOES HERE:

ADDRESS SHOWN: ❑ Home ❑ Business

NAME

TITLE COMPANY

ADDRESS

CITY STATE ZIP

OTHER QUESTIONS AND PROBLEMS
It is better to write us concerning your problem and include the magazine label. Also, address changes are handled more efficiently by mail. However, should you need to reach us quickly, the following toll-free number is available: **(800) 669-7327 Outside U.S. call (847) 559-7327.**
Internet address: cw@omeda.com

NAME
TITLE
COMPANY
ADDRESS
CITY

HOW TO CONTACT COMPUTERWORLD

We invite readers to call or write with their comments and ideas. It is best to submit ideas to one of the department editors and the appropriate beat reporter.

Don Tennant (508) 620-7714
Editor in chief

Mitch Betts (301) 262-8243
Executive editor

Julie King (610) 532-7599
Executive editor, events

DEPARTMENT EDITORS

Craig Stedman (508) 820-8120
News editor

Mike Bucken (508) 820-8562
Assistant News editor

Tommy Peterson (508) 620-7729
Technology editor

Kathleen Melymuka (508) 820-8118
Management editor

REPORTERS

Matt Hamblen (508) 820-8567
Networking; mobile/wireless; network/systems management

Heather Havenstein (919) 386-0381
Business intelligence, application development; Web services; application server software; health care

Eric Lai (510) 768-2818
Windows, Linux, databases, desktop applications

Lucas Mearian (508) 820-8215
Storage; disaster recovery and business continuity; financial services industry

Linda Rosencrance (508) 628-4734
General assignment; transportation and automotive industries

Carol Sliwa (508) 628-4731
National correspondent

Marc L. Songini (508) 820-8182
ERP; supply chain and CRM applications; food and agribusiness

Patrick Thibodeau (202) 333-2448
Enterprise systems, Unix; outsourcing and immigration; antitrust issues

Jaikumar Vijayan (630) 978-8390
Corporate security/privacy issues; manufacturing industry

Todd R. Weiss (717) 560-5255
General assignment; open-source community; intellectual property issues; messaging/collaboration

FEATURES

Ellen Francine (508) 820-8204
Special projects editor

Thomas Hoffman (845) 988-9630
National correspondent

Robert L. Mitchell (508) 820-8177
National correspondent

Mark Hall (503) 391-1158
Editor at large

Gary H. Anthes (703) 536-9233
National correspondent

Julia King (610) 532-7599
National correspondent

OPINIONS

Frank Hayes (503) 252-0100
Senior news columnist

COMPUTERWORLD.COM

Martha Connors (508) 620-7700
Vice president/general manager

Ian Lamont (508) 820-8187
Senior online projects editor

Gregg Linde (508) 820-8217
Online production manager

Sharon Machlis (508) 820-8231
Managing editor/online

Ken Mingis (508) 820-8545
Online news editor

Vin Narayanan (508) 820-8185
Managing editor/online channels

Marian Prokop (508) 620-7717
Online editor at large

David Ramel (508) 820-8269
E-mail newsletter/online editor at large

John R. Brillon (508) 820-8216
Associate art director

Dave Peterson (508) 820-8131
Production designer

Peter Smith
Web development manager

Kevin Gerich, Mark Savery
Web developers

RESEARCH

Mari Kevin
Research manager

Susie Wilson
Research associate

COPY DESK

Michele Lee DeFilippo (508) 820-8126
Managing editor/production

Bob Rawson (508) 271-8015
Assistant managing editor/production

Mike Parent, Monica Sambataro
Senior copy editors

Eugene Demaitre
Copy editor

GRAPHIC DESIGN

Stephanie Faucher (508) 820-8235
Design director

April O'Connor
Associate art director

Julie Quinn
Senior Designer

Susan Cahill
Graphics coordinator

ADMINISTRATIVE SUPPORT

Linda Gargano (508) 820-8176
Office manager

CONTRIBUTING EDITOR

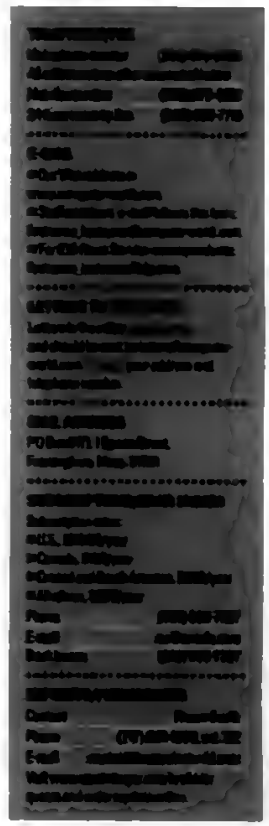
Jamie Eckle (617) 566-1873
Opinions

CONTRIBUTING COLUMNISTS

Michael Gartenberg, Paul Glen, Barbara Gomolski, John Halamka, Thornton A. May, David Moschella, Gart Perkins, Virginia Robbins, Bruce A. Stewart

CONTRIBUTING WRITERS

Mary Brandel, Stacy Collett, Russell Kay, Mary K. Pratt, Drew Robb



COMPANIES IN THIS ISSUE

Page number refers to page on which story begins. Company names can also be searched at www.computerworld.com

ADHESIVE CORP ... 14
ADVANCED NETWORK SERVICES GROUP ... 14
ALLSTATE INSURANCE CO. ... 14
AMERIVAULT CORP ... 36
AMR RESEARCH INC. ... 70 0
ARSENCE INC. ... 0
ARSENAL DIGITAL SOLUTIONS ... 30
ASHOPA INC. ... 69
ASSOCIATION OF SUPPORT PROFESSIONALS ... 69
AT&T CORP. ... 69
BEA SYSTEMS INC. ... 0
BERLITZ INTERNATIONAL INC. ... 69
BLACK HAT ... 1 0
BLUE SHIELD OF CALIFORNIA ... 36
CAREERCURRENCY LLC ... 70
CELENT LLC ... 69
CELTEL ... 14
CHARLES SCHWAB & CO. ... 69
CHICAGO MERCANTILE EXCHANGE HOLDINGS INC. ... 70
CHILDREN'S HOSPITAL BOSTON ... 4
CHORDIANT CORP ... 69
CHORDIANT INC. ... 69
CIPHERTRUST INC. ... 0
CISCO SYSTEMS INC. ... 69
COGNIZANT ... 36
COGNOS INC. ... 69
CONCERIUM ... 14
COMPUTER ASSOCIATES INTERNATIONAL INC. ... 1
COMPUTER ASSOCIATES ... 1, 70
CONTRAD INC. ... 0
CONVERIANT CORP ... 70
COPAN SYSTEMS INC. ... 70
CRYSTAL DECISIONS ... 69
CUSTOMER REVOLUTIONS INC. ... 69
DELTA AIR LINES INC. ... 69
DOLE FOOD CO. ... 36
DPW INC. ... 70
EMC CORP. ... 70
ENTERPRISE APPLICATIONS CONSULTING ... 70, 70
EVAULT INC. ... 69
FAIR ISAAC CORP ... 69
FEDERAL TRADE COMMISSION ... 69
FIRST 4 INTERNET LTD. ... 69
FORRESTER RESEARCH INC. ... 70, 74, 79
FRANCISCO PARTNERS MANAGEMENT LLC ... 0
FRONTRANGE LTD. ... 0
GARTNER INC. ... 4, 69, 74, 69, 69
GEAC COMPUTER CORP. ... 70
GLASSHOUSE TECHNOLOGIES INC. ... 70
GOLDEN GATE CAPITAL CORP ... 69
GOVERNMENT OPEN CODE COLLABORATIVE ... 36
GROUP ... 69, 69
GUARDIUM ... 36
HEWLETT-PACKARD CO. ... 1, 4, 69
IBM ... 1, 14, 69, 69
ID ANALYTICS INC. ... 69
IHC ... 70, 69
INCENTRA SOLUTIONS INC. ... 69
INFOR GLOBAL SOLUTIONS ... 69
INTEL CORP ... 14
INTERNATIONAL DATA GROUP ... 69
INTERNET SECURITY SYSTEMS INC. ... 0
INTERWOVEN ... 69
IPLOCKS INC. ... 37
IPR INTERNATIONAL LLC ... 69
IRON MOUNTAIN INC. ... 69
JUNIPER NETWORKS INC. ... 0
LEVERAGE PARTNERS INC. ... 69
LIBERTY MEDIA CORP ... 0
LIVEVAULT CORP ... 36
LM ERICSSON TELEPHONE CO. ... 14
LUMINENT TECHNOLOGIES INC. ... 69, 37
MANAGEDSTORAGE ... 36
MARCS INC. ... 69
MCDONNELL INSTITUTE FOR BRAIN RESEARCH ... 34
MCKESSON EDIRA ... 69
MCKESSON ... 40, 69
MEM MIRAGE ... 1
MICROSOFT CORP. ... 64, 1, 69, 69
69 70, 69, 70 4 14, 0
MIT ... 69
MIXIN HEALTHCARE INC. ... 69
MORGAN STANLEY ... 34
NAMEX CORP ... 69
NATIONAL ASSOCIATION OF SOFTWARE AND SERVICE COMPANIES ... 69
NATIONAL CENTER FOR MISSING AND EXPLOITED CHILDREN ... 70
NETWORK APPLIANCE INC. ... 4
NETWORK SERVICES CO. ... 36
NETWORK SOLUTIONS LTD. ... 14
NIPPON TELEGRAPH AND TELEPHONE CORP. ... 69
NORTHROP GRUMMAN CORP ... 70
NORTHWEST NATURAL GAS CO. ... 4
ORACLE CORP. ... 70 70 70, 69, 14, 69, 69
PALM INC. ... 0
PENGUIN COMPUTING INC. ... 0
PERIMIR CORP. ... 0
PERIMETER SOFTWARE INC. ... 69
PGP CORP ... 0
PIONEER INSTITUTE LLC ... 0
PROPERO INC. ... 0
PULTE HOMES INC. ... 70
REDBOX INTERNATIONAL ... 69
RESEARCH MACHINES PLC ... 69
SAP AG ... 0, 70 69, 72, 70 0
SARBANOX TECHNOLOGY ... 36
SCALE EIGHT INC. ... 69
SHL SYSTEMHOUSE INC. ... 36
SIEBEL SYSTEMS INC. ... 69
SIERRA SOUTHWEST COOPERATIVE SERVICES INC. ... 70
SILVERMACK TECHNOLOGIES ... 70
SOCIETY FOR INFORMATION MANAGEMENT ... 4
SONU ... 14
SONY BMG ... 69
SPIRE SECURITY LLC ... 69
SPRINT NEXTEL CORP. ... 4
STORABILITY SOFTWARE ... 34
STORAGE NETWORKS INC. ... 34
STORAGE TECHNOLOGY CORP. ... 69
SUN MICROSYSTEMS INC. ... 70
SUNGARD DATA SYSTEMS INC. ... 69
SYMANTEC CORP ... 0
SYNTEL ... 36
TANDING TECHNOLOGY CORP ... 34
TATA CONSULTANCY SERVICES LTD. ... 14
TAXI GROUP ... 34
THE CIS GROUP INC. ... 36
THE CLIPPER GROUP INC. ... 4
THE FEDERAL EMERGENCY MANAGEMENT AGENCY ... 69
THE NORTHWESTERN MUTUAL LIFE INSURANCE CO. ... 4
THOMS INC. ... 69
TOTALITY CORP ... 34
TPI INC. ... 70
TRANSUNION LLC ... 69
TRANSLINK INC. ... 69
TRIDENT GLOBAL REFRIGERANTS INC. ... 36
TROUTMAN SANDERS LLP ... 69
U.S. DEPARTMENT OF DEFENSE ... 0, 70
U.S. DEPARTMENT OF HOMELAND SECURITY ... 70
U.S. DEPARTMENT OF THE NAVY ... 69
U.S. HEALTH AND HUMAN SERVICES DEPARTMENT ... 4
VERIDYNE INC. ... 69, 69
VIN DSNC ... 69
WASHINGTON UNIVERSITY ... 70
WHIRLPOOL CORP ... 70
WINTERGREEN SOFTWARE ... 69
WIPRO ... 69
WWW.CONFERENCEBOOKING.INFO ... 69
XILINX INC. ... 69

Continued from page 1

CA

age management tools.

Several users who are familiar with Unicenter II praised CA's plans to integrate its products and third-party tools through a common management database. They said the new release will also include an improved portal that IT managers can use to glimpse into various systems.

"With one common management database, that makes [data] transportability a lot cleaner," said Harry Butler, support center manager at EFW Inc., an electronics supplier in Fort Worth, Texas.

Butler, who manages about 3,000 PCs and 75 servers, is beta-testing Unicenter II and has used the management database to link several databases that contain information about tasks such as asset management and software distribution. The integration has helped reduce the time it takes to complete systems management procedures, Butler said.

Clark Ammons, production and systems manager at Washington University in St. Louis, said he has seen a PowerPoint presentation on the new Unicenter capabilities and thinks they sound "awesome." Unicenter II should provide the ability to view tools for managing PCs, servers and mainframes, storage, networks and IT service levels from a single portal, Ammons said.

"It puts all that information right in front of one person instead of two or three computer operators that you have to staff on every shift," he said. Even so, he noted that it might be hard for the university to install the software because of funding issues and the complexity of such changes.

Steven Gelfound, IT director at the National Center for Missing and Exploited Children in Alexandria, Va., said he's "ecstatic about Unicenter II" because the software should enable him to combine the databases for about 20 CA products into one repository.

"We're a nonprofit without a huge IT staff," Gelfound said. "And with 40 servers to manage, we want to have one central database to have our service desk tool talk to our asset management tool and have everything integrated."

With the management database, "virtually any CA application and potentially any third-party [product] can harvest management data from any other CA application," said Dennis Drogseth, an analyst at Enterprise Management Associates in Boulder, Colo. On a scale of 1 to 10 in importance, "this is a 10," he said.

CA World comes as the software vendor is trying to round a corner in its history. Since its last user conference in May 2004, CA has ousted former CEO Sanjay Kumar and seen him and other former executives charged in connection with an alleged accounting fraud scheme. It also hired John Swainson from IBM as its new top executive and embarked on a series of reorganization moves.

Swainson has said that improving CA's often testy relationships with customers is a key part of his long-term plan for revitalizing the vendor.

But Lee Anne Wilfert, CIO at Sierra Southwest Cooperative Services Inc. in Benson, Ariz., said the changes made at CA thus far have reduced her contact with the company. "We're a reference account for them, but we don't even know our sales rep at this point," Wilfert said.

Partly as a result of that, Sierra Southwest is shifting from CA's asset management software to a product from SAP AG, Wilfert said. But the SAP tool will be interfaced with other Unicenter components that the energy cooperative will continue to use. ▸

Continued from page 1

Storage

Corp.'s Veritas Enterprise Vault software to archive e-mail and plans to do the same thing for the company's file systems next year.

"Information just keeps growing. Our demand for storage keeps growing. I'm not sure if we're ever ahead of the storage problem, but we're going to do something to keep up," Fucci said.

Of roughly 250 users polled by conference organizers, 51% said they have no way of determining the cost of storing data over time. Another 47% said they have a tiered storage model and some idea of storage costs but no way to automatically migrate data between tiers. Only 7% said they can definitely determine the value of their data.

Gary Schwimmer, a data center operations manager at Los Angeles-based Northrop Grumman Corp., said his company has developed a data retention policy that involves tagging data using the Standard Generalized Markup Language to determine what to move and when to move it.

But Schwimmer said that migrating data from one tier to another is still a manual process that's prompted by an automated e-mail notification system developed in-house.

Data Deletion

The IT managers said another big issue is finding ways to ensure that data is deleted at the end of its useful life. While some said they delete everything after a set period of time, others said their data often sits in external storage vaults, requiring the payment of fees and a migration to newer tape technology over time.

Schwimmer said Northrop Grumman's data deletion policy requires that everything go after 10 years. But, he added, "we're struggling like everyone else. The big part is convincing people it's going to [require] an investment to make things change."

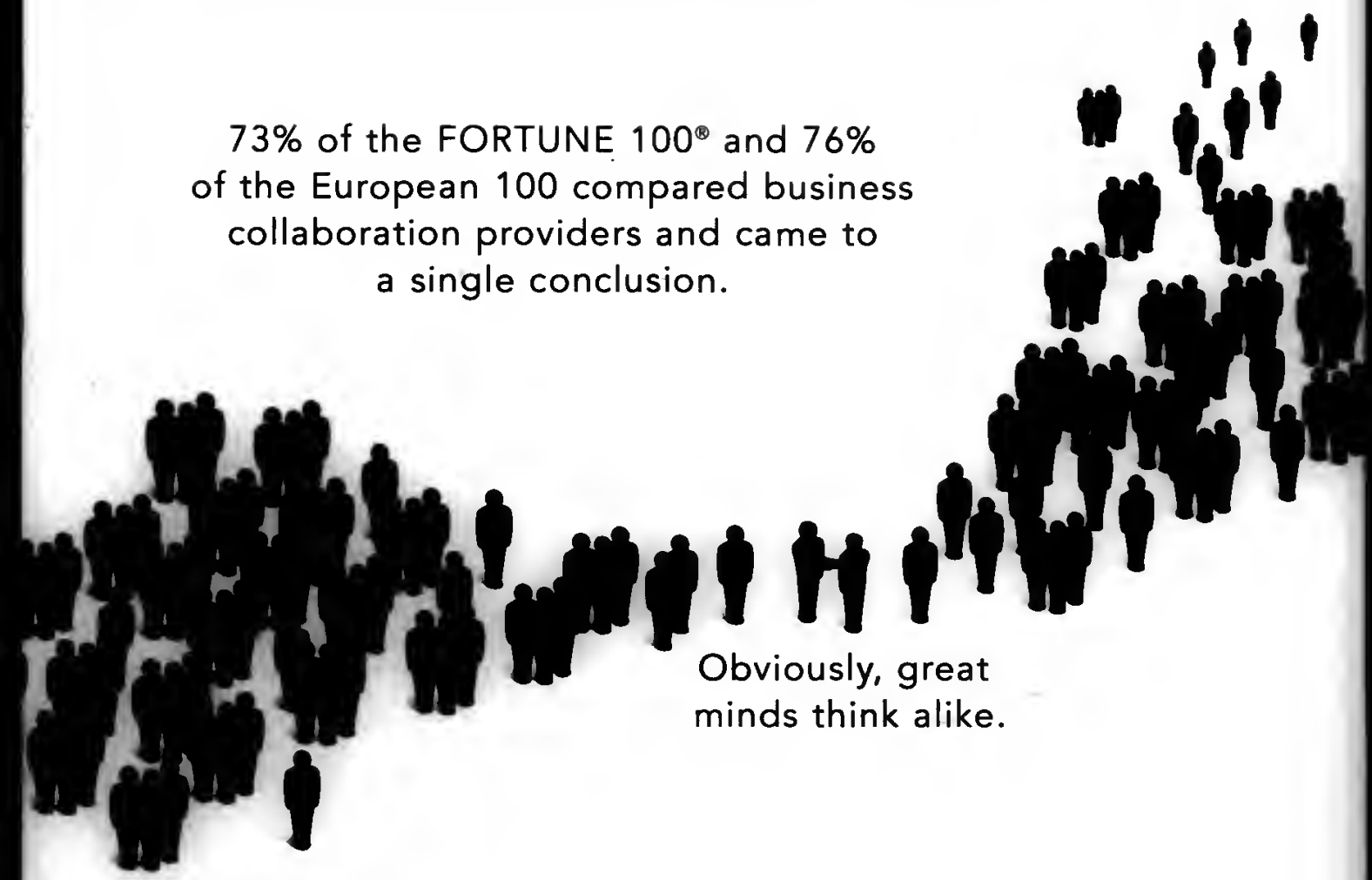
Richard Scannell, a consultant at GlassHouse Technologies Inc. in Framingham, Mass., said IT managers can't afford not to begin deleting data. Even if the capacity of new storage systems doubles every 18 months, it will never be enough to keep up with data growth, he said. Statistics show that up to 74% of all data storage costs can be attributed to maintenance and administration of existing storage, he added.

Craig Taylor, associate director of open systems at Chicago Mercantile Exchange Holdings Inc., said his group is working to determine how to classify data so migration policies can be created. Taylor's group has built an elaborate storage infrastructure with five tiers of data storage that include EMC Corp.'s Symmetrix arrays, secondary disk storage systems from Copan Systems Inc. and tape libraries from Storage Technology Corp., which was recently acquired by Sun Microsystems Inc.

Even so, noted Taylor, "do we have any physical deletion policy? No." ▸

Periodical postage paid at Framingham, Mass., and other mailing offices. Posted under Canadian International Publication agreement #40063900 CANADIAN POSTMASTER: Please return undeliverable copy to PO Box 1632, Windsor, Ontario N9A 7C9. Computerworld (ISSN 0010-4841) is published weekly, except a single combined issue for the last two weeks in December by Computerworld, Inc., 1 Speen Street, Box 9171, Framingham, Mass. 01701-9171. Copyright 2004 by Computerworld, Inc. All rights reserved. Computerworld can be purchased on microfilm and microfiche through University Microfilms, Inc., 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Computerworld is indexed. Back issues, if available, may be purchased from the circulation department. Photocopy rights, permission to photocopy for internal or personal use is granted by Computerworld, Inc. to libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $3 per copy of the article, plus $0 cents per page, is paid directly to Copyright Clearance Center, 27 Congress St., Salem, Mass. 01970. Reprints (minimum 100 copies) and permission to reprint may be purchased from Reprint Smith, Computerworld Reprints, c/o Reprint Management Services, Cloverleaf Corporate Center, 1809 Colonial Village Lane, Lancaster, Pa. 17601 (717) 399-1900 Ext. 172, Fax (717) 399-8900. Web site: www.reprintbuyer.com. E-mail: reprints@computerworld.com. Requests for missing issues will be honored only if received within 60 days of issue date. Subscription rates: $5 per copy U.S. - $99.99 per year; Canada - $100 per year; Central & So America - $250 per year; Europe - $295 per year; all other countries - $295 per year. Subscriptions call toll-free (888) 559-7327. POSTMASTER: Send Form 3579 (Change of Address) to Computerworld, PO Box 3500, Northbrook, IL 60065-3500.

73% of the FORTUNE 100® and 76% of the European 100 compared business collaboration providers and came to a single conclusion.



Obviously, great minds think alike.

Many of the world's most successful organizations rely upon Sterling Commerce to automate their business processes, so they can exchange critical information with their trading partners, subsidiaries and customers. Reliably. Securely. And regardless of the application being used. Sterling Commerce delivers the first platform to meet all the complex challenges of real-world multi-enterprise collaboration. Find out what so many companies already know. Speak to a Sterling Commerce representative today. Or visit **www.sterlingcommerce.com**

BUSINSSS APPLICATIONS / BUSINSSS INTSGRATION / BUSINSSS INTSLLIGSNCE BUSINESS PROCSSS MANAGSMSNT SOLUTION DSLIVERY

sterling commerce

©2005 Sterling Commerce, Inc. ALL RIGHTS RESERVED Sterling Commerce and the Sterling Commerce logo are trademarks of Sterling Commerce, Inc. Sterling Commerce is an SBC Communications, Inc. company. FORTUNE is a registered mark of Time Inc.

FRANK HAYES • FRANKLY SPEAKING

Devil's Advocate

COULD Sony BMG have botched it any more badly? It's hard to see how. By now you've heard the story: Sony has been using a copy protection system called XCP on recent music CDs to discourage piracy. XCP, it turns out, installs hidden spyware on a Windows-based PC when an XCP-treated disc is put in the PC's CD drive. Mark Russinovich, chief software architect at Winternals Software, spotted the worm and raised a stink. Sony claimed that the worm was innocuous but issued a patch anyway. Now the patch may crash PCs, the spyware reportedly contacts Sony via the Internet, Italian police are investigating whether Sony committed a crime, and Sony's reputation is in the toilet.

And the worst of it? XCP doesn't stop piracy. Not at all.

Sony should have known that. A quick browse through the Web site of First 4 Internet Ltd., the British company that sells XCP, turns up this caveat: "If data in any format is digitally written to a compact disc or DVD then it can be read from that disc in some way. XCP is designed to give a level of protection that will make it suitably difficult for the general consumer to copy and/or illegally distribute the content of the disc."

In other words, XCP isn't designed to stop real music pirates from stripping out the copy protection and stamping out thousands of pirated discs to sell. Or to prevent experienced file-swappers from ripping CD tracks and turning them into illegal MP3s to put on the Internet.

No, XCP is aimed only at ordinary consumers — the paying customers Sony makes money from. Anyone else can easily work around it. Sony managed to employ a copy protection system that doesn't stop thieves, just legitimate buyers.

Hey, quit smirking. You're not *that* much smarter than Sony.

You say Sony should have done pilot tests with XCP before putting it on regular products? Sony did. Suny didn't keep its use of copy protection a secret, either. Anyone who read the recording-business trade news knew about it. Even some daily newspapers ran stories on it last February. Making CD copy protection highly visible was central to Sony's plan.

No, Sony didn't need more testing or publicity or planning. What Sony needed was a devil's advocate — someone to point out that the company was spending money on a "solution" that couldn't solve the problem, wouldn't be worth the cost and could cause big problems down the line.

Think you're so smart? How many of your new technology projects have a devil's advocate?

Not just a foot-dragger who dislikes the idea of the project, but a tough-minded critic whose job is to ferret out everything that's likely to be wrong with it.

A highly professional pessimist who assumes that the network won't be able to handle the increased load. And that the users won't find the new interface intuitive. And that the programmers won't sail through that optimistic project schedule without so much as a glitch.

Someone who will make sure the project is vetted from every angle. Who will describe it in unflattering detail to your lawyers. Who will demand those unflattering details from your vendors. Who will check out reference customers, tease out questionable claims and generally make sure all the problematic questions get asked.

And — one thing more — someone who always remembers that his job isn't political but technical and that it's not to torpedo the project but to spot all the things that can go wrong so *they* won't torpedo the project.

FRANK HAYES, Computerworld's senior news columnist, has covered IT for more than 20 years. Contact him at frank_hayes@computerworld.com.

Would a devil's advocate have saved Sony from its XCP botch job? Maybe not. But at least Sony would have known in advance a lot more of the ways its new copy-protection scheme could go horribly wrong.

Will your next project demonstrate that you're ever so much smarter than Sony? Maybe.

Get yourself a devil's advocate and find out. ♦

SHARK TANK

Unclear on the Concept

User walks into pilot fish's office and announces that one of the office copiers is smarter than the user is. "Being the positive, upbeat person that I am, I replied that can't be," says fish. "He told me he knew he must open something to put the paper in but wasn't sure what. That's when I had to inform him that the copier was in another office. He was looking at our network printer. I guess he was right after all."

Not Now, Sooner!

Pilot fish walks into work one morning to find his in-box overflowing with e-mails. "I was subscribed to a mailing list concerning a time-critical activity," fish says. "Apparently, some problem in the mailing list software managed to not send me these messages for days." Ten minutes later, fish hears from his boss, who's also on the list: "Why haven't you reacted to these messages?" Because I received them only now, just like you did, fish explains. Boss: "Yes, but these messages were sent two and three days ago. You should have reacted sooner!"

Tight

This user's monitor cable fell behind her desk, so she reattached it, but now the monitor won't work, she tells support pilot fish. Bad monitor, fish decides, and starts to remove the cable. "But I can't, because the screws are cross-threaded," fish says. "I use my multitool to unscrew them a quarter turn at a time as the user informs me that putting that cable back on after it fell off was very difficult. I finally see the problem: When the cable fell down behind her desk, she picked it up and reattached it upside down. The force required to insert a DB-15 plug upside down and screw the thing in is unimaginable. I'll never ask her to arm wrestle, that's for sure!"

The Power of DSL

Help desk gets a call from a user in a remote office after the power goes out: "How can I run my computer during a power outage?" You'll need a generator for that, fish says. "I don't want to get a generator," user replies. "I just want to be online when there's no power. Can't I just use the DSL line? You know, like how the phone works when the power's out. I wanna do that, only be online."

And how?

I can't connect with the network, remote user tells help desk pilot fish. "After several minutes of troubleshooting, it was clear that the problem was the user's modem, which basically died," fish reports. Impatient user's next question: "So where can I download another modem?"

UPLOAD YOUR TALE TO SHARKY. Send me your true story of IT life at sharky@computerworld.com. You'll snag a snazzy Shark shirt if I use it. And check out the daily feed, browse the Sharkives and sign up for Shark Tank home delivery at computerworld.com/sharky.

FRANK HAYES • FRANKLY SPEAKING

Devil's Advocate

COULD Sony BMG have botched it any more badly? It's hard to see how. By now you've heard the story: Sony has been using a copy protection system called XCP on recent music CDs to discourage piracy. XCP, it turns out, installs hidden spyware on a Windows-based PC when an XCP-treated disc is put in the PC's CD drive. Mark Russinovich, chief software architect at Winternals Software, spotted the worm and raised a stink. Sony claimed that the worm was innocuous but issued a patch anyway. Now the patch may crash PCs, the spyware reportedly contacts Sony via the Internet, Italian police are investigating whether Sony committed a crime, and Sony's reputation is in the toilet.

And the worst of it? XCP doesn't stop piracy. Not at all.

Sony should have known that. A quick browse through the Web site of First 4 Internet Ltd., the British company that sells XCP, turns up this caveat: "If data in any format is digitally written to a compact disc or DVD then it can be read from that disc in some way. XCP is designed to give a level of protection that will make it suitably difficult for the general consumer to copy and/or illegally distribute the content of the disc."

In other words, XCP isn't designed to stop real music pirates from stripping out the copy protection and stamping out thousands of pirated discs to sell. Or to prevent experienced file-swappers from ripping CD tracks and turning them into illegal MP3s to put on the Internet.

No, XCP is aimed only at ordinary consumers — the paying customers Sony makes money from. Anyone else can easily work around it. Sony managed to employ a copy protection system that doesn't stop thieves, just legitimate buyers.

Hey, quit smirking. You're not *that* much smarter than Sony.

You say Sony should have done pilot tests with XCP before putting it on regular products? Sony did. Sony didn't keep its use of copy protection a secret, either. Anyone who read the recording-business trade news knew about it. Even some daily newspapers ran stories on it last February. Making CD copy protection highly visible was central to Sony's plan.

No, Sony didn't need more testing or publicity or planning. What Sony needed was a devil's advocate — someone to point out that the company was spending money on a "solution" that couldn't solve the problem, wouldn't be worth the cost and could cause big problems down the line.

Think you're so smart? How many of *your* new technology projects have a devil's advocate?

Not just a foot-dragger who dislikes the idea of the project, but a tough-minded critic whose job is to ferret out everything that's likely to be wrong with it.

A highly professional pessimist who assumes that the network *won't* be able to handle the increased load. And that the users *won't* find the new interface intuitive. And that the programmers *won't* sail through that optimistic project schedule without so much as a glitch.

Someone who will make sure the project is vetted from every angle. Who will describe it in unflattering detail to your lawyers. Who will demand those unflattering details from your vendors. Who will check out reference customers, tease out questionable claims and generally make sure all the problematic questions get asked.

And — one thing more — someone who always remembers that his job isn't political but technical and that it's not to torpedo the project but to spot all the things that can go wrong so *they* won't torpedo the project.

Would a devil's advocate have saved Sony from its XCP botch job? Maybe not. But at least Sony would have known in advance a lot more of the ways its new copy-protection scheme could go horribly wrong.

Will your next project demonstrate that you're ever so much smarter than Sony? Maybe.

Get yourself a devil's advocate and find out. ▸

HITACHI
Inspire the Next
Your data wants to be an astronaut.
We're inspired by the human side of data
Data Storage fr H

Oracle Database 10*g*

#1 On Windows

Starts at $149 per user

Oracle Database 10*g*—
The World's #1 Database. Now For Small Business.

ORACLE

oracle.com/start
keyword: #1onWindows
or call 1.800.633.0675

Terms, restrictions and limitations apply. Standard Edition One is available with Named User Plus licensing at $149 per user with a minimum of five users or $4995 per processor. Licensing of Oracle Standard Edition One is permitted only on servers that have a maximum capacity of 2 CPUs per server. For more information, visit oracle.com/standardedition

Copyright © 2005, Oracle. All rights reserved. Oracle, JD Edwards and PeopleSoft are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.